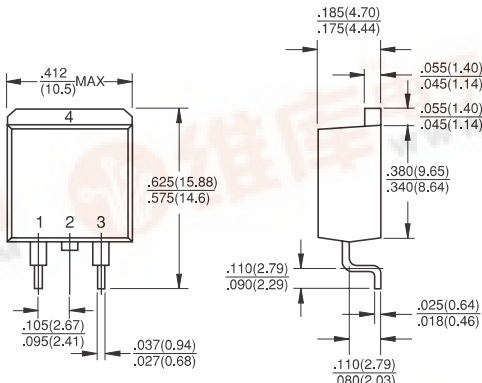


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <div>SRAS2035 THRU SRAS2045</div> <div>20.0 AMPS. Schottky Barrier Rectifiers</div> |                                                                                                                                                                                                                                      |          |          |             |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-------------|--------|----------|----------|----------|-------|----------------------------------------|------------------|----|----|----|---|---------------------|------------------|----|----|----|---|-----------------------------|-----------------|----|----|----|---|---------------------------------------------------------|-------------------|------|--|--|---|----------------------------------------------------------------------------------------------------------|------------------|-----|--|--|---|-------------------------------------------------------------|----------------|--------------|--|--|---|-------------------------------------------------------------------------------------------------------------|----------------|------------|--|--|----------|-------------------------------------|------------------|-----|--|--|------|---------------------------------------|----|-----|--|--|----|--------------------------------------|----------------|-------------|--|--|----|---------------------------|------------------|-------------|--|--|----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                     | Voltage Range<br>35 to 45 Volts<br>Current<br>20.0 Amperes                                                                                                                                                                           |          |          |             |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| <div>Features</div> <ul style="list-style-type: none"><li>For surface mounted application</li><li>Low forward voltage drop</li><li>High current capability</li><li>High reliability</li><li>High surge current capability</li></ul> <div>Mechanical Data</div> <ul style="list-style-type: none"><li>Cases: D<sup>2</sup>PAK molded plastic</li><li>Epoxy: UL 94V-0 rate flame retardant</li><li>Terminals: Lead solderable per MIL-STD-202, Method 208 guaranteed</li><li>Polarity: As marked</li><li>High temperature soldering guaranteed: 260°C/10 seconds at terminals</li><li>Weight: 1.70 grams</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                     | <div>D<sup>2</sup>PAK</div>  <p>PIN 1    ○<br/>PIN 3    ○    CASE 4<br/>          ○    PIN 2</p> <div>Dimensions in inches and (millimeters)</div> |          |          |             |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| <div>Maximum Ratings and Electrical Characteristics</div> <div>Rating at 25°C ambient temperature unless otherwise specified.</div> <div>Single phase, half wave, 60 Hz, resistive or inductive load.</div> <div>For capacitive load, derate current by 20%</div> <table><tr><th>Type Number</th><th>Symbol</th><th>SRAS2035</th><th>SRAS2040</th><th>SRAS2045</th><th>Units</th></tr><tr><td>Maximum Recurrent Peak Reverse Voltage</td><td>V<sub>RRM</sub></td><td>35</td><td>40</td><td>45</td><td>V</td></tr><tr><td>Maximum RMS Voltage</td><td>V<sub>RMS</sub></td><td>25</td><td>28</td><td>32</td><td>V</td></tr><tr><td>Maximum DC Blocking Voltage</td><td>V<sub>DC</sub></td><td>35</td><td>40</td><td>45</td><td>V</td></tr><tr><td>Maximum Average Forward Rectified Current<br/>See Fig. 1</td><td>I<sub>(AV)</sub></td><td colspan="3">20.0</td><td>A</td></tr><tr><td>Peak Forward Surge Current, 8.3 ms Single<br/>Half Sine-wave Superimposed on Rated Load<br/>(JEDEC method)</td><td>I<sub>FSM</sub></td><td colspan="3">350</td><td>A</td></tr><tr><td>Maximum Instantaneous Forward Voltage<br/>@ 20.0A<br/>@ 40.0A</td><td>V<sub>F</sub></td><td colspan="3">0.57<br/>0.73</td><td>V</td></tr><tr><td>Maximum D.C. Reverse Current @ T<sub>j</sub>=25°C<br/>at Rated DC Blocking Voltage @ T<sub>j</sub>=125°C</td><td>I<sub>R</sub></td><td colspan="3">2.7<br/>105</td><td>mA<br/>mA</td></tr><tr><td>Typical Thermal Resistance (Note 1)</td><td>R<sub>θJC</sub></td><td colspan="3">1.5</td><td>°C/W</td></tr><tr><td>Typical Junction Capacitance (Note 2)</td><td>pF</td><td colspan="3">900</td><td>pF</td></tr><tr><td>Operating Junction Temperature Range</td><td>T<sub>J</sub></td><td colspan="3">-65 to +150</td><td>°C</td></tr><tr><td>Storage Temperature Range</td><td>T<sub>STG</sub></td><td colspan="3">-65 to +150</td><td>°C</td></tr></table> |                                                                                     |                                                                                                                                                                                                                                      |          |          | Type Number | Symbol | SRAS2035 | SRAS2040 | SRAS2045 | Units | Maximum Recurrent Peak Reverse Voltage | V <sub>RRM</sub> | 35 | 40 | 45 | V | Maximum RMS Voltage | V <sub>RMS</sub> | 25 | 28 | 32 | V | Maximum DC Blocking Voltage | V <sub>DC</sub> | 35 | 40 | 45 | V | Maximum Average Forward Rectified Current<br>See Fig. 1 | I <sub>(AV)</sub> | 20.0 |  |  | A | Peak Forward Surge Current, 8.3 ms Single<br>Half Sine-wave Superimposed on Rated Load<br>(JEDEC method) | I <sub>FSM</sub> | 350 |  |  | A | Maximum Instantaneous Forward Voltage<br>@ 20.0A<br>@ 40.0A | V <sub>F</sub> | 0.57<br>0.73 |  |  | V | Maximum D.C. Reverse Current @ T <sub>j</sub> =25°C<br>at Rated DC Blocking Voltage @ T <sub>j</sub> =125°C | I <sub>R</sub> | 2.7<br>105 |  |  | mA<br>mA | Typical Thermal Resistance (Note 1) | R <sub>θJC</sub> | 1.5 |  |  | °C/W | Typical Junction Capacitance (Note 2) | pF | 900 |  |  | pF | Operating Junction Temperature Range | T <sub>J</sub> | -65 to +150 |  |  | °C | Storage Temperature Range | T <sub>STG</sub> | -65 to +150 |  |  | °C |
| Type Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Symbol                                                                              | SRAS2035                                                                                                                                                                                                                             | SRAS2040 | SRAS2045 | Units       |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Maximum Recurrent Peak Reverse Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | V <sub>RRM</sub>                                                                    | 35                                                                                                                                                                                                                                   | 40       | 45       | V           |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Maximum RMS Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | V <sub>RMS</sub>                                                                    | 25                                                                                                                                                                                                                                   | 28       | 32       | V           |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Maximum DC Blocking Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | V <sub>DC</sub>                                                                     | 35                                                                                                                                                                                                                                   | 40       | 45       | V           |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Maximum Average Forward Rectified Current<br>See Fig. 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I <sub>(AV)</sub>                                                                   | 20.0                                                                                                                                                                                                                                 |          |          | A           |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Peak Forward Surge Current, 8.3 ms Single<br>Half Sine-wave Superimposed on Rated Load<br>(JEDEC method)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | I <sub>FSM</sub>                                                                    | 350                                                                                                                                                                                                                                  |          |          | A           |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Maximum Instantaneous Forward Voltage<br>@ 20.0A<br>@ 40.0A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | V <sub>F</sub>                                                                      | 0.57<br>0.73                                                                                                                                                                                                                         |          |          | V           |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Maximum D.C. Reverse Current @ T <sub>j</sub> =25°C<br>at Rated DC Blocking Voltage @ T <sub>j</sub> =125°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | I <sub>R</sub>                                                                      | 2.7<br>105                                                                                                                                                                                                                           |          |          | mA<br>mA    |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Typical Thermal Resistance (Note 1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | R <sub>θJC</sub>                                                                    | 1.5                                                                                                                                                                                                                                  |          |          | °C/W        |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Typical Junction Capacitance (Note 2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | pF                                                                                  | 900                                                                                                                                                                                                                                  |          |          | pF          |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Operating Junction Temperature Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | T <sub>J</sub>                                                                      | -65 to +150                                                                                                                                                                                                                          |          |          | °C          |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |
| Storage Temperature Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | T <sub>STG</sub>                                                                    | -65 to +150                                                                                                                                                                                                                          |          |          | °C          |        |          |          |          |       |                                        |                  |    |    |    |   |                     |                  |    |    |    |   |                             |                 |    |    |    |   |                                                         |                   |      |  |  |   |                                                                                                          |                  |     |  |  |   |                                                             |                |              |  |  |   |                                                                                                             |                |            |  |  |          |                                     |                  |     |  |  |      |                                       |    |     |  |  |    |                                      |                |             |  |  |    |                           |                  |             |  |  |    |

Notes: 1. Thermal Resistance from Junction to Case Per Leg,  
2. Measured at 1MHz and Applied Reverse Voltage of 5.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SRAS2035 THRU SRAS2045)

FIG.1- FORWARD CURRENT DERATING CURVE

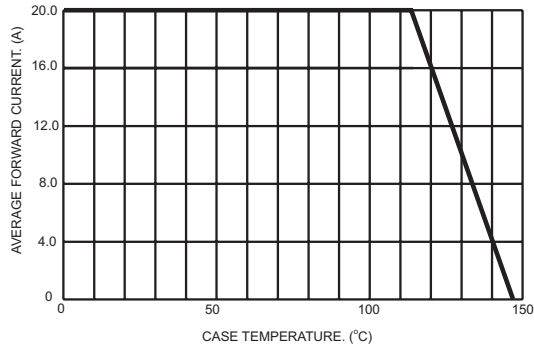


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

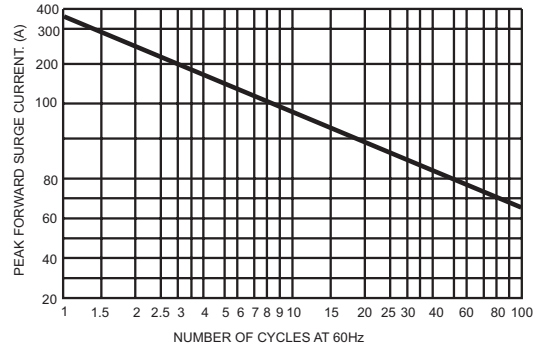


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

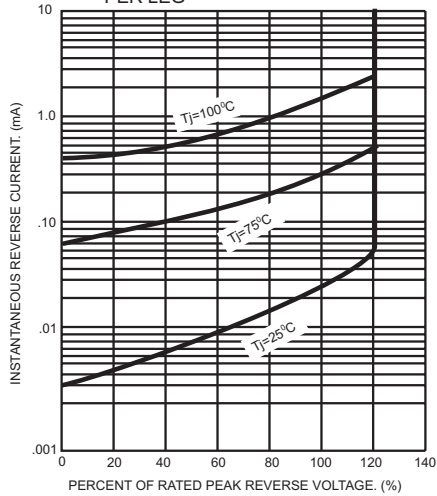


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

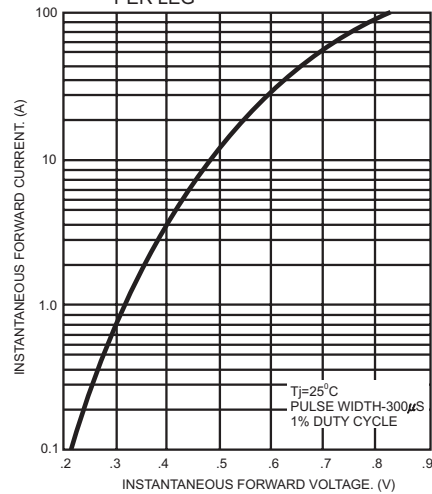


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

