



# RS501 thru RS507

<b>SILICON BRIDGE RECTIFIERS</b>	<p>REVERSE VOLTAGE - <b>50 to 1000</b> Volts                  FORWARD CURRENT - <b>5.0</b> Amperes</p>
<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>● Plastic material used carries UL recognition 94V-0</li> <li>● High surge current capability</li> <li>● Ideal for printed circuit board</li> <li>● Built-in printed board stand offs</li> </ul>	<p><b>RS5</b></p> <p>Dimensions in inches and (millimeters)</p>

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified.  
 resistive or inductive load at 50Hz or 60Hz.

CHARACTERISTICS	SYMBOL	RS501	RS502	RS503	RS504	RS505	RS506	RS507	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	400	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Repetitive Peak Reverse Voltage (Note1)	V <sub>RRM</sub>	100	190	300	600	900	1200	1500	V
Maximum Average Forward Output Current I <sub>FAVM</sub> natural cooling, T <sub>A</sub> =45°C									
C-Load					3.3				
R+L-Load	I(A)				4.0				A
on chassis=31in <sup>2</sup> , 200cm <sup>2</sup> , T <sub>A</sub> =45°C									
C-Load					5.0				
R+L-Load					6.0				
Maximum Repetitive Peak Forward Surge Current I <sub>FSM</sub>	A <sub>PK</sub>				30				A
Peak Forward Surge Current Single @T <sub>J</sub> =25°C					250				
Sine-Wave on Rated Load (JEDEC Method) @T <sub>J</sub> =150°C	I <sub>FSM</sub>				200				A
I <sup>2</sup> t Rating for Fusing @T <sub>J</sub> =25°C					312				
(t<8.3ms) @T <sub>J</sub> =150°C	I <sup>2</sup> t				200				A <sup>2</sup> S
Maximum Series Resistance at V <sub>RMS</sub>		0.15	0.3	0.6	1.2		1.8		OHM
Maximum Reservoir Capacitor		10000	5000	5000	2500		1000		uF
Maximum Reverse Current at @T <sub>J</sub> =25°C					10.0				µA
Rated Repetitive Peak Voltage @T <sub>J</sub> =150°C	I <sub>R</sub>				6.0				mA
Maximum instantaneous Forward Drop per Element at 5.0A	V <sub>F</sub>				1.0				V
Operating Temperature Range	T <sub>J</sub>				-55 to+125				°C
Storage Temperature Range	T <sub>STG</sub>				-55 to+150				°C

NOTES: 1. Valid for each bridge element.

# RATING AND CHARACTERISTIC CURVES

## RS501 thru RS507



FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

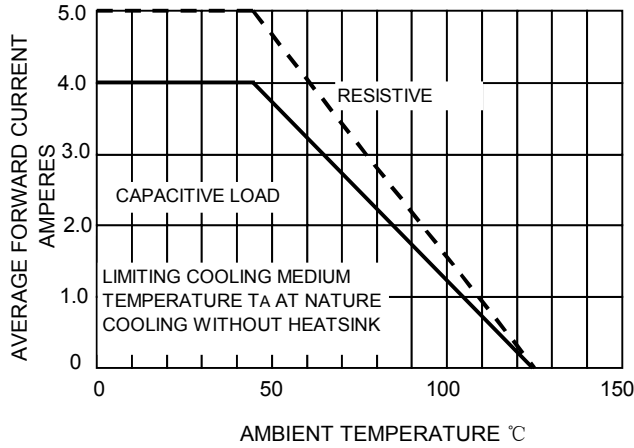


FIG.2- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

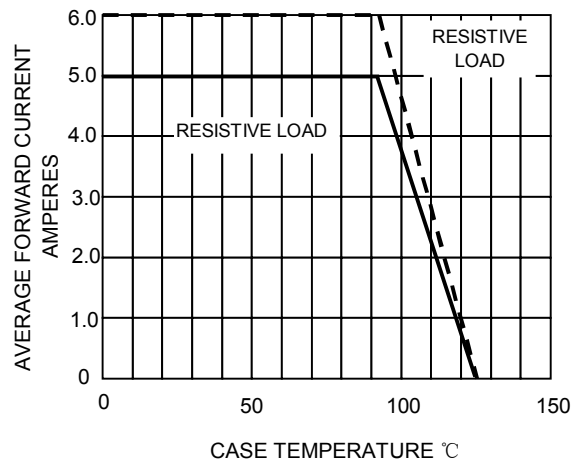


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PER BRIDGE ELEMENT

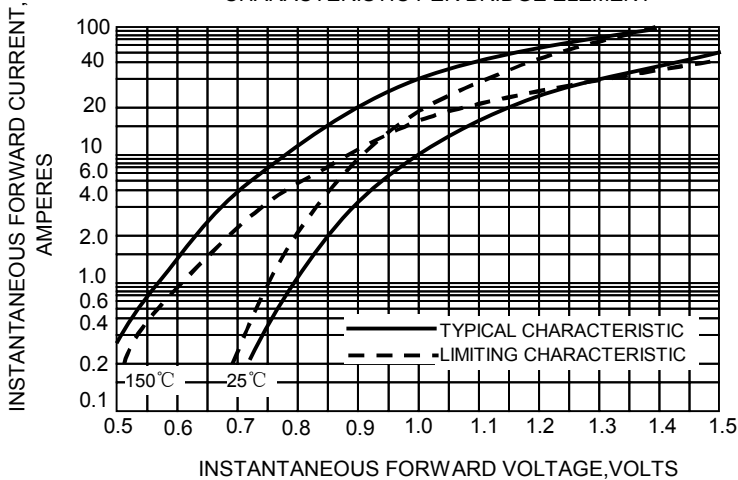


FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

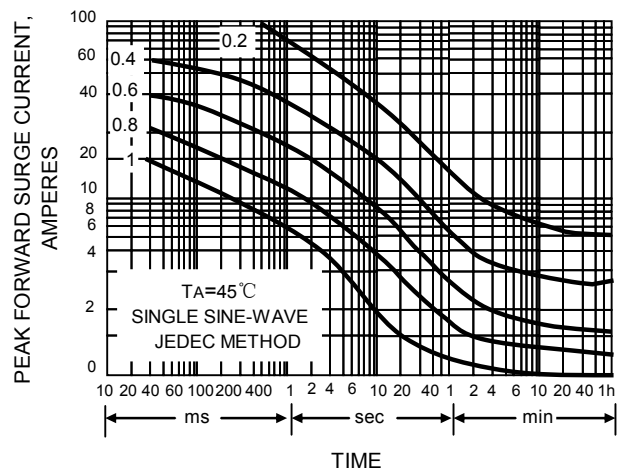


FIG.5-MAXIMUM TOTAL BRIDGE POWER DISSIPATION

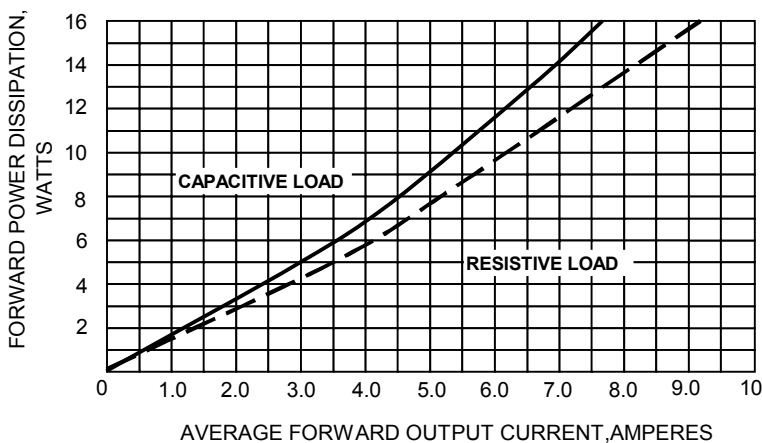


FIG.6-MEAN AVERAGE FORWARD CURRENT CASE TEMPERATURE

