



Micro Commercial Components  
21201 Itasca Street Chatsworth  
CA 91311

Phone: (818) 701-4933

Fax: (818) 701-4939

## FST10020 THRU FST100100

### Features

- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

### Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

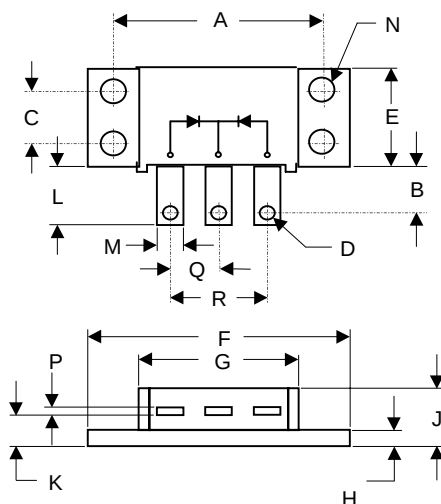
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------------------------------|---------------------|-----------------------------|
| FST10020        | 20V                                    | 14V                 | 20V                         |
| FST10030        | 30V                                    | 21V                 | 30V                         |
| FST10035        | 35V                                    | 24.5V               | 35V                         |
| FST10040        | 40V                                    | 28V                 | 40V                         |
| FST10045        | 45V                                    | 31.5V               | 45V                         |
| FST10060        | 60V                                    | 42V                 | 60V                         |
| FST10080        | 80V                                    | 56V                 | 80V                         |
| FST110100       | 100V                                   | 70V                 | 100V                        |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |       |                                                      |
|---------------------------------------------------------|-------------|-------|------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 100 A | $T_A = 85^\circ\text{C}$                             |
| Peak Forward Surge Current                              | $I_{FSM}$   | 1000A | 8.3ms, half sine                                     |
| Maximum Instantaneous Forward Voltage                   | $V_F$       |       | $I_{FM} = 50.0\text{A};$<br>$T_A = 25^\circ\text{C}$ |
| FST10020-10045                                          |             | .63 V |                                                      |
| FST10060                                                |             | .75 V |                                                      |
| FST10080-100100                                         |             | .84 V |                                                      |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 2 mA  | $T_A = 25^\circ\text{C}$                             |
| Typical Junction Capacitance                            | $C_J$       | 300pF | Measured at 1.0MHz, $V_R=4.0\text{V}$                |

### 100 Amp Schottky Barrier Rectifier 20 to 100 Volts

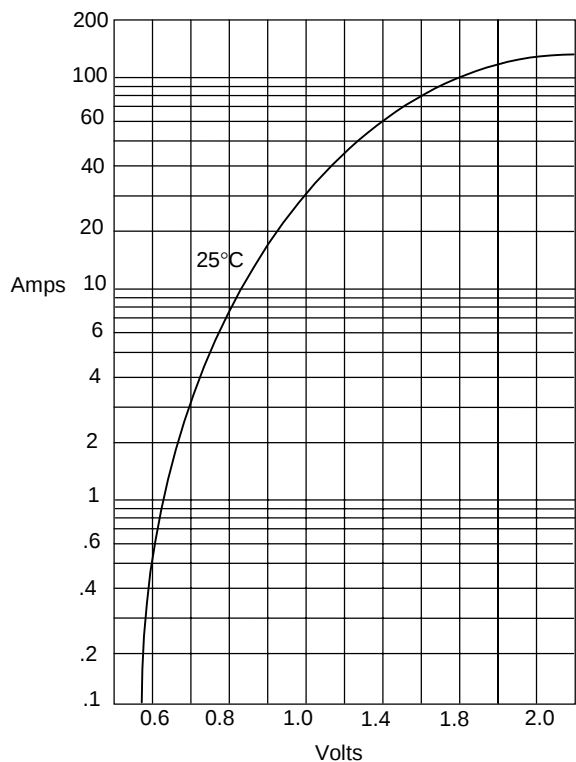
### POWERMOD



| DIMENSIONS |            |       |       |       |      |
|------------|------------|-------|-------|-------|------|
| DIM        | INCH<br>ES |       | MM    |       | NOTE |
|            | MIN        | MAX   | MIN   | MAX   |      |
| A          | 1.995      | 2.005 | 50.67 | 50.93 |      |
| B          | .330       | .325  | 7.62  | 8.26  |      |
| C          | .495       | .505  | 12.57 | 12.83 |      |
| D          | .182       | .192  | 4.62  | 4.88  |      |
| E          | .990       | 1.010 | 25.12 | 26.65 |      |
| F          | 1.490      | 1.510 | 37.85 | 38.35 |      |
| G          | 1.500      | 1.525 | 38.10 | 38.70 |      |
| H          | .120       | .130  | 3.05  | 3.30  |      |
| J          | -----      | .400  | ----- | 10.16 |      |
| K          | .240       | .260  | 6.10  | 6.60  |      |
| L          | .490       | .510  | 12.45 | 12.95 |      |
| M          | .330       | .350  | 8.38  | 6.90  |      |
| N          | .175       | .195  | 4.45  | 4.95  | Ø    |
| P          | .035       | .045  | 0.89  | 1.14  |      |
| P          | .445       | .455  | 11.30 | 11.56 |      |
| P          | .890       | .910  | 22.61 | 23.11 |      |

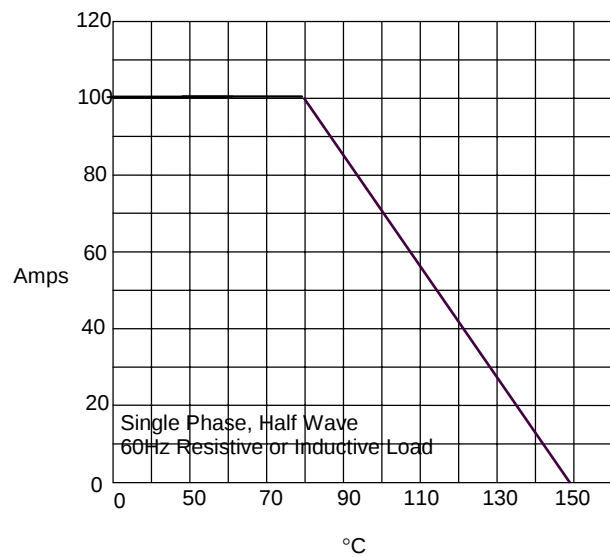
\*Pulse Test: Pulse Width 300µsec, Duty Cycle 1%

Figure 1  
Typical Forward Characteristics



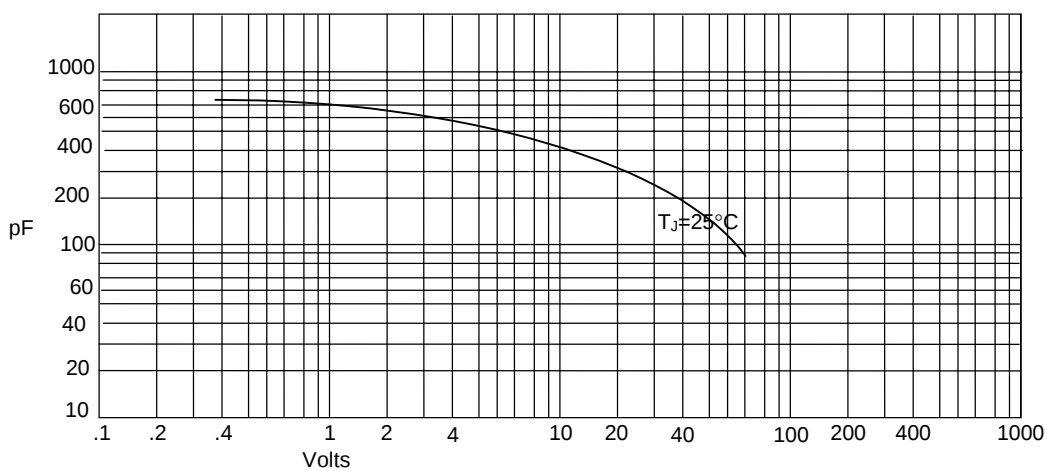
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



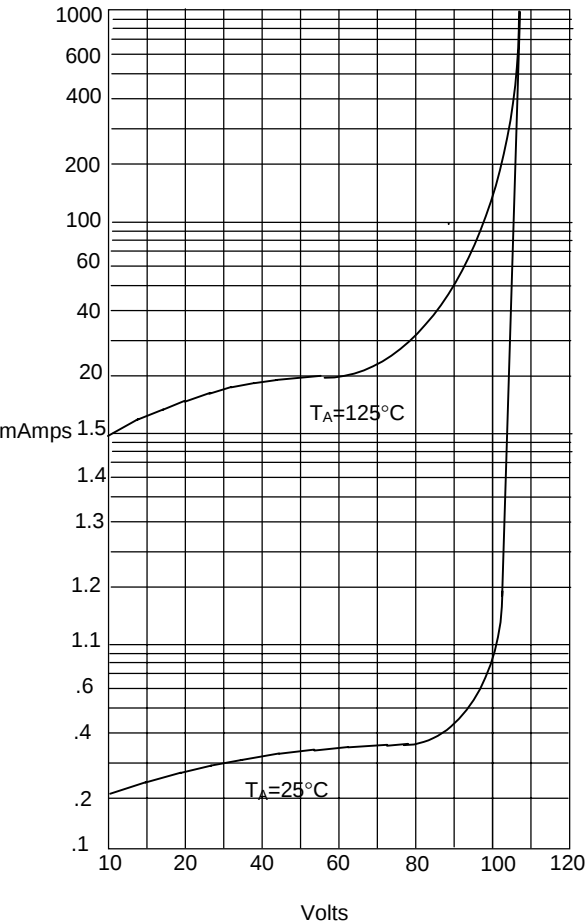
Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



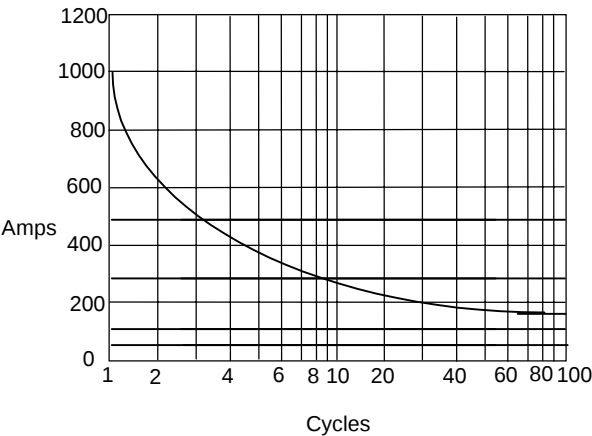
Junction Capacitance - pF versus  
Reverse Voltage - Volts

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles