

HIGH POWER DIODE MODULE TYPES 100A

Features

- High Surge Capability
- Types up to 1600V V_{RRM}
- Isolation Type Package
- Electrically Isolation base plate

Maximum Ratings

Operating Temperature : -40°C to +175°C

Storage Temperature : -40°C to +175°C

| Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---------------------|--|---------------------|-----------------------------|
| MSRTTA10060(A)D(R) | 600V | 420V | 600V |
| MSRTTA10080(A)D(R) | 800V | 560V | 800V |
| MSRTTA100100(A)D(R) | 1000V | 700V | 1000V |
| MSRTTA100120(A)D(R) | 1200V | 840V | 1200V |
| MSRTTA100140(A)D(R) | 1400V | 980V | 1400V |
| MSRTTA100160(A)D(R) | 1600V | 1120V | 1600V |

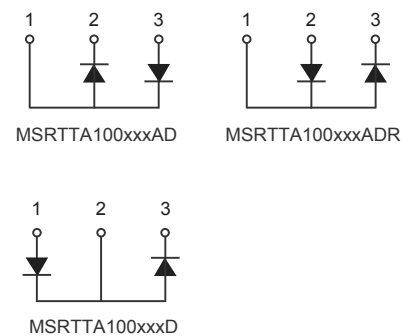
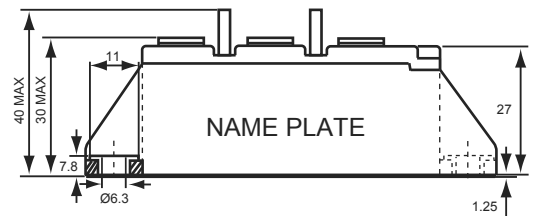
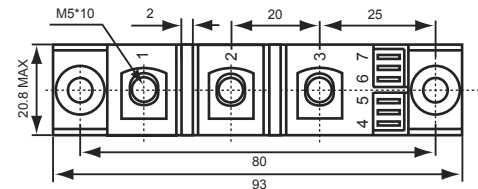
Electrical Characteristics @ 25 °C Unless Otherwise Specified

| | | | |
|---|-----------------|------------------------|---|
| Average Forward Current (Per leg) | $I_{F(AV)}$ | 100A | $T_c = 140^\circ C$ |
| Peak Forward Surge Current (Per leg) | I_{FSM} | 2000A | 8.3ms , half sine |
| Maximum Instantaneous Forward Voltage * | V_F | 1.10V | $I_{FM}=100A; T_J = 25^\circ C$ |
| Maximum Instantaneous Reverse Current At Rated DC Blockig Voltage* (Per leg) | I_R | 10 μA 5mA | $T_J = 25^\circ C$ $T_J = 150^\circ C$ |
| Isolation Voltage | V_{isol} | 2500V | A.C. 1minute |
| Maximum Thermal Resistance Junction To Case (Per leg) | $R_{\theta jc}$ | 0.45°C/W | |
| Mounting torque | | 5 ± 0.5Nm 3 ± 0.5Nm | to heatsink to terminals |

*Pulse Test: Pulse Width 300 μsec , Duty Cycle 2%



Dimensions in mm (1 mm = 0.0394")



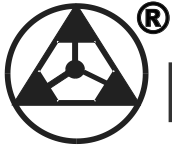


Figure .1- Typical Forward Characteristics

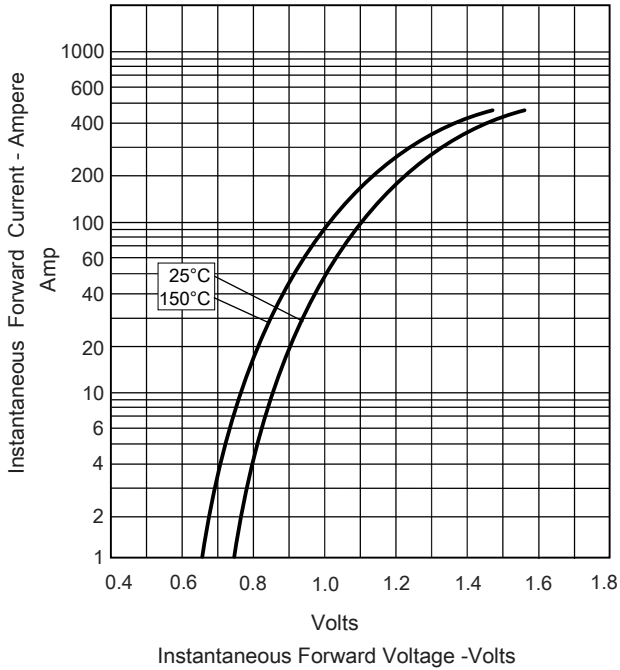


Figure .2-Forward Derating Curve

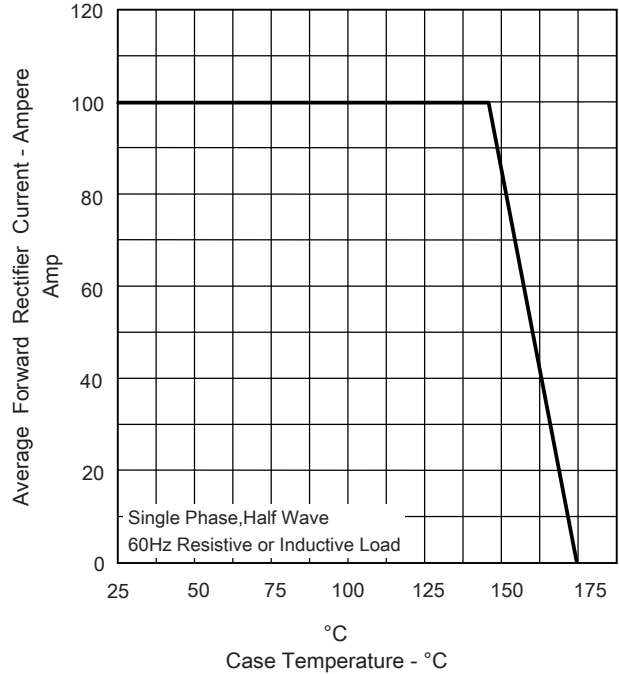


Figure .3-Peak Forward Surge Current

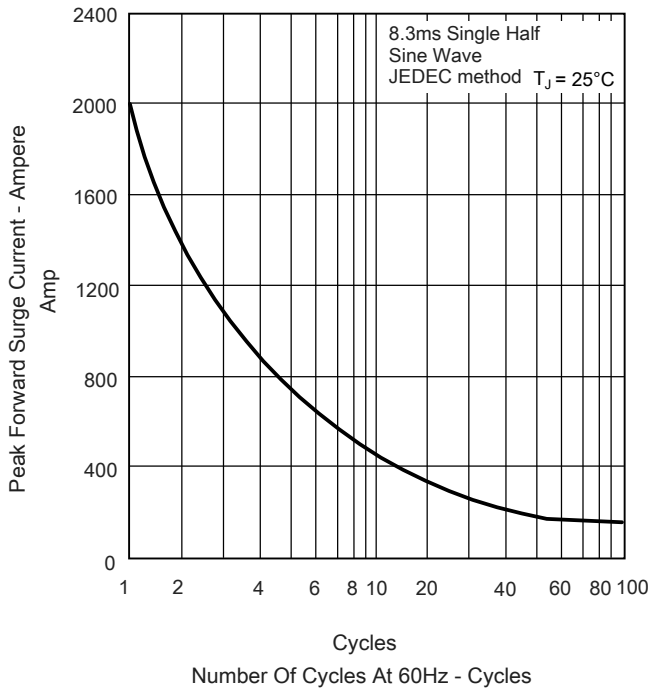


Figure .4-Typical Reverse Characteristics

