**Solid State Devices, Inc.**
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

# SSR1008M, SSR1008Z
# SSR1009M, SSR1009Z
# SSR1010M, SSR1010Z

## 10 AMPS
## 80 - 100 VOLTS
## SCHOTTKY RECTIFIER

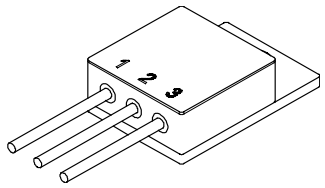
## Designer's Data Sheet

**Part Number/Ordering Information** [1/]

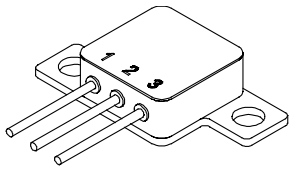
**SSR1008** ___
**SSR1009** ___
**SSR1010** ___

- **Screening** [2/] __ = Not Screened, TX = TX Level, TXV = TXV, S = S Level
- **Lead Options** __ = Straight Leads, D = Bent Down, U = Bent Up
- **Package** M = TO-254, Z = TO-254Z

**TO-254**




**TO-254Z**




**FEATURES:**

- **Extremely Low Forward Voltage Drop**
- **Low Reverse Leakage Current**
- **Hermetically Sealed Package**
- **Guard Ring for Overvoltage Protection**
- **Eutectic Die Attach**
- **175°C Operating Junction Temperature**
- **TX, TXV, or Space Level Screening Available**

## MAXIMUM RATINGS

| RATING | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| **Peak Repetitive Reverse Voltage and DC Blocking Voltage** SSR1008M, SSR1008Z<br>SSR1009M, SSR1009Z<br>SSR1010M, SSR1010Z | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 80<br>90<br>100 | Volts |
| **Average Rectified Output Current** [3/]<br>(Resistive Load, 60Hz, Sine Wave, TA=25°C) | $I_O$ | 10 | Amps |
| **Peak Surge Current** [3/]<br>(8.3 ms Pulse, Half Sine Wave, superimposed on $I_O$, allow junction to reach equilibrium between pulses, TA=25°C) | $I_{FSM}$ | 200 | Amps |
| **Operating and Storage Temperature** | $T_{OP}$ & $T_{STG}$ | -65 to +175 | °C |
| **Maximum Thermal Resistance** [3/]<br>Junction to Case | $R_{\theta JC}$ | 1.7 | °C/W |

NOTES: 1/ For ordering information, price, and availability- Contact Factory.
2/ Screened to MIL-PRF-19500.
3/ For optimal performance, connect leads 2 & 3 together.

**Solid State Devices, Inc.**
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

# SSR1008M, SSR1008Z
# SSR1009M, SSR1009Z
# SSR1010M, SSR1010Z

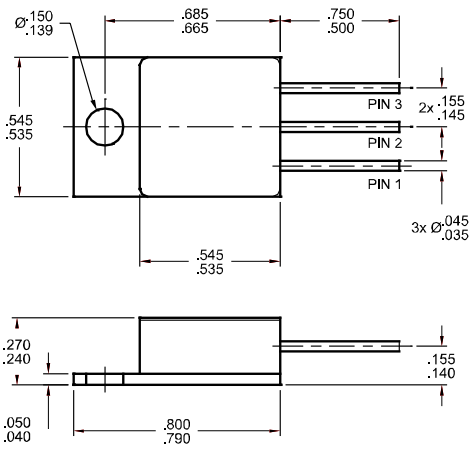
## ELECTRICAL CHARACTERISTICS (Per Leg)

| CHARACTERISTICS | SYMBOL | MAXIMUM | UNIT |
|---|---|---|---|
| **Instantaneous Forward Voltage Drop**<br>($I_F$ = 1 Adc, $T_A$ = 25°C, Pulse)<br>($I_F$ = 5 Adc, $T_A$ = 25°C, Pulse)<br>($I_F$ = 10 Adc, $T_A$ = 25°C, Pulse) | $V_{F1}$<br>$V_{F2}$<br>$V_{F3}$ | 0.57<br>0.72<br>0.8 | Vdc |
| **Instantaneous Forward Voltage Drop** $T_A$ = 100°C<br>($I_F$ = 10 Adc, Pulse) $T_A$ = -55°C | $V_{F4}$<br>$V_{F5}$ | 0.70<br>0.90 | Vdc |
| **Reverse Leakage Current**<br>(Rated $V_R$, $T_A$ = 25°C, Pulse) | $I_{R1}$ | 100 | µA |
| **Reverse Leakage Current**<br>(Rated $V_R$, $T_A$ = 100°C, Pulse) | $I_{R2}$ | 5 | mA |
| **Junction Capacitance**<br>($V_R$ = 10 Vdc, $T_A$ = 25°C, f = 1 MHz) | $C_J$ | 400 | pF |

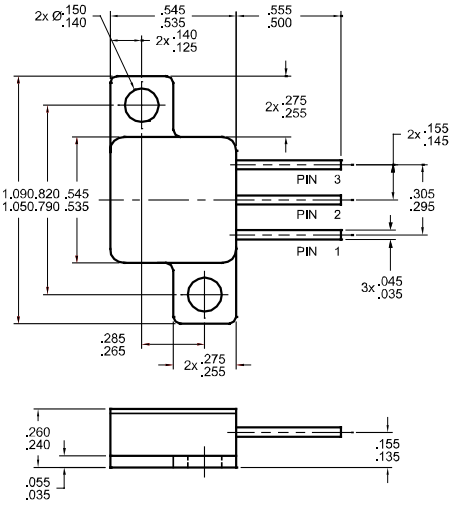
**Case Outlines- TO-254 and TO-254Z-**

**PIN OUT: Rectifier Configuration 4/**
**PIN 1- CATHODE**
**PIN 2- ANODE**
**PIN 3- ANODE**

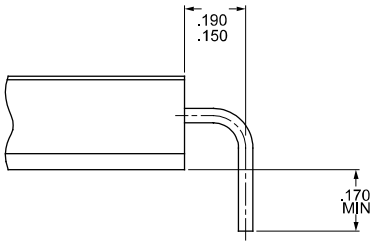
**TO-254 (M Suffix)**



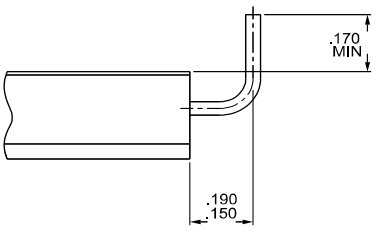

**TO-254Z (Z Suffix)**




**Optional Bent Down Leads**
**(MD & ZD Suffix)**




**Optional with Bent Up Leads**
**(MU & ZU Suffix)**




For information on curves, contact the Factory Representative for Engineering Assistance.

NOTES: **4/** Pins 2 and 3 must be externally connected for best performance.