



**Solid State Devices, Inc.**

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**SSR1008M, SSR1008Z  
 SSR1009M, SSR1009Z  
 SSR1010M, SSR1010Z**

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

**Designer's Data Sheet**

**Part Number/Ordering Information <sup>1/</sup>**

SSR1008 — — —  
 SSR1009 — — —  
 SSR1010 — — —

**Screening <sup>2/</sup>**

— = Not Screened  
 TX = TX Level  
 TXV = TXV Level  
 S = S Level

**Lead Options**

— = Straight Leads  
 DB = Bent Down  
 UB = Bent Up

**Package**

M = TO-254  
 Z = 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

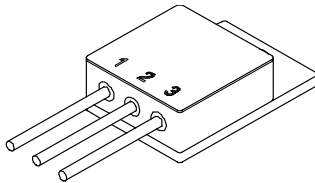
**MAXIMUM RATINGS**

RATING		SYMBOL	VALUE	UNIT
<b>Peak Repetitive Reverse Voltage and DC Blocking Voltage</b>	SSR1008	$V_{RRM}$	80	Volts
	SSR1009	$V_{RWM}$	90	
	SSR1010	$V_R$	100	
<b>Average Rectified Output Current <sup>3/</sup></b> (Resistive Load, 60Hz, Sine Wave, TA=25°C)		$I_O$	10	Amps
<b>Peak Surge Current <sup>3/</sup></b> (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
<b>Operating and Storage Temperature</b>		$T_{OP} \& T_{STG}$	-65 to +175	°C
<b>Maximum Thermal Resistance <sup>3/</sup></b> Junction to Case		$R_{\theta JC}$	2.0	°C/W

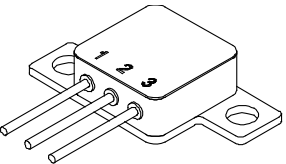
**NOTES:**

- 1/ For ordering information, price, and availability- Contact Factory.  
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.  
 3/ For optimal performance, connect leads 2 & 3 together.

**TO-254**



**TO-254Z**





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**ELECTRICAL CHARACTERISTICS (Per Leg)**

CHARACTERISTICS	SYMBOL	MAX	UNIT
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1 \text{ Adc}$ , $T_A = 25^\circ\text{C}$ , Pulse) ( $I_F = 5 \text{ Adc}$ , $T_A = 25^\circ\text{C}$ , Pulse) ( $I_F = 10 \text{ Adc}$ , $T_A = 25^\circ\text{C}$ , Pulse)	$V_{F1}$ $V_{F2}$ $V_{F3}$	0.57 0.72 0.8	Vdc
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10 \text{ Adc}$ , Pulse)	$V_{F4}$ $V_{F5}$	0.70 0.90	Vdc
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , Pulse)	$I_{R1}$	100	$\mu\text{A}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , Pulse)	$I_{R2}$	5	mA
<b>Junction Capacitance</b> ( $V_R = 10 \text{ Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )	$C_J$	400	pF

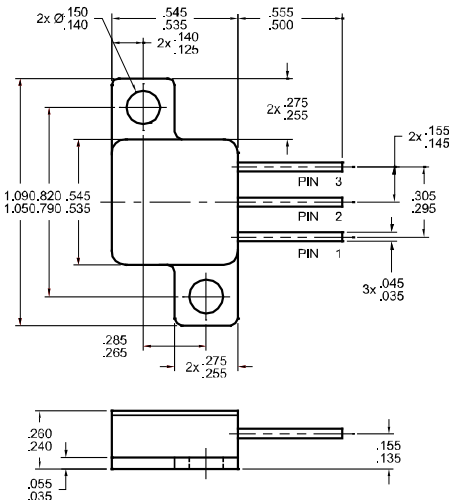
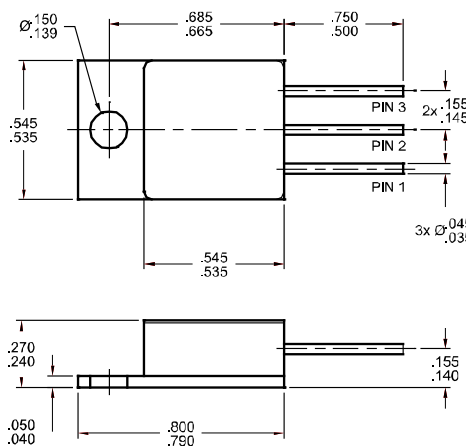
Case Outlines- TO-254 and TO-254Z Configuration <sup>4/</sup>

PIN OUT: Rectifier

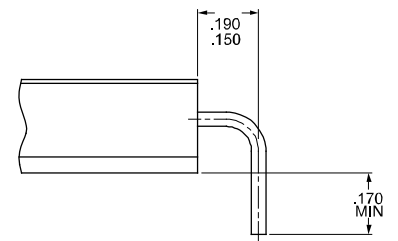
PIN 1- CATHODE  
 PIN 2- ANODE  
 PIN 3- ANODE

**TO-254 (M Suffix)**

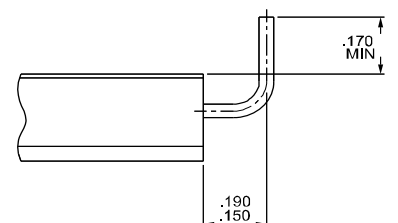
**TO-254Z (Z Suffix)**



Optional Bent Down Leads (MDB & ZDB Suffix)



Optional Bent Up Leads (MUB & ZUB Suffix)



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

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

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RS0205L

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