



Solid State Devices, Inc.

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 ssdi@ssdi-power.com * www.ssdi-power.com

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

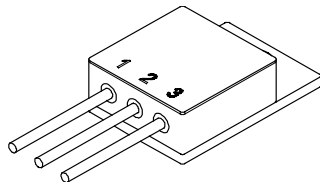
SSR1008 — — —
 SSR1009 — — —
 SSR1010 — — —

Screening ^{2/} — = Not Screened
 TX = TX Level
 TXV = TXV
 S = S Level

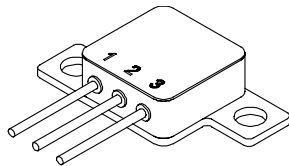
Lead Options — = Straight Leads,
 D = Bent Down, U = Bent Up

Package M = TO-254, Z = TO-254Z

TO-254



TO-254Z



SSR1008M, SSR1008Z
SSR1009M, SSR1009Z
SSR1010M, SSR1010Z

10 AMPS
80 - 100 VOLTS
SCHOTTKY RECTIFIER

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 SSR1009M, SSR1009Z SSR1010M, SSR1010Z	V_{RRM} V_{RWM} V_R	80 90 100	Volts
Average Rectified Output Current ^{3/} (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I_O	10	Amps
Peak Surge Current ^{3/} (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/} 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.

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

DATA SHEET #: RS0205K

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SSR1008M, SSR1008Z
SSR1009M, SSR1009Z
SSR1010M, SSR1010Z

ELECTRICAL CHARACTERISTICS (Per Leg)

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

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

PIN OUT: Rectifier Configuration $\frac{4}{}$

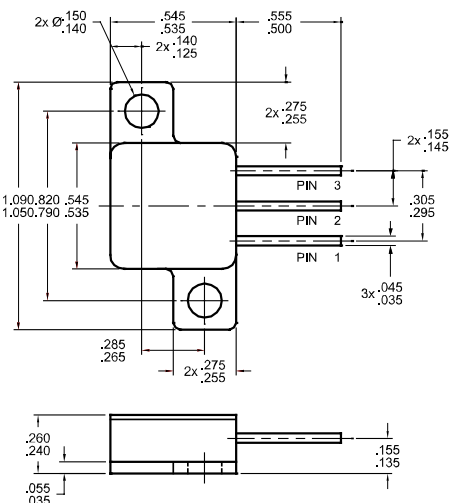
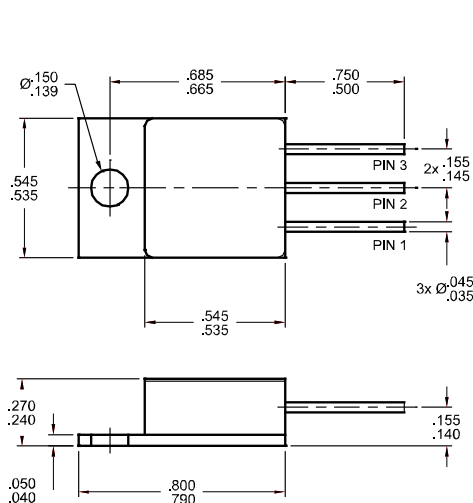
PIN 1- CATHODE

PIN 2- ANODE

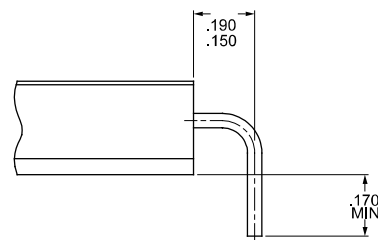
PIN 3- ANODE

TO-254 (M Suffix)

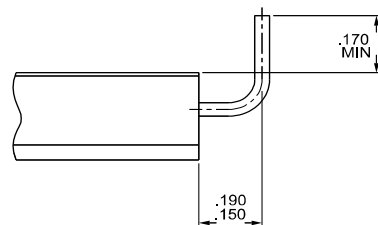
TO-254Z (Z Suffix)



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: $\frac{4}{}$ Pins 2 and 3 must be externally connected for best performance.

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