



PRELIMINARY

**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773

**SSR1008M & Z  
SSR1009M & Z  
SSR1010M & Z**

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

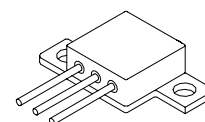
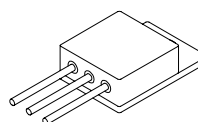
**Designer's Data Sheet**

**FEATURES:**

- Extremely Low Forward Voltage Drop
- Low Reverse Leakage
- Hermetically Sealed Package
- Guard Ring for Overvoltage Protection
- Eutectic Die Attach
- 175°C Operating Junction Temperature
- For TO-254Z Package Specify "Z" Suffix.
- Also available in following configurations  
     Doubler: SSR1008DM & DZ  
             SSR1009DM & DZ  
             SSR1010DM & DZ
- TX, TXV and Space Level Screening Available

TO-254 (M)

TO-254Z (Z)



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SSR1008M & Z	$V_{RRM}$	80	Volts
	SSR1009M & Z	$V_{RWM}$	90	
	SSR1010M & Z	$V_R$	100	
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$ )		$I_o$	10	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on $I_o$ , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ )		$I_{FSM}$	200	Amps
Operating and Storage Temperature		$T_{OP} \& T_{stg}$	-65 TO +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case		$R_{\theta JC}$	1.7	$^\circ\text{C/W}$

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

**DATA SHEET #: RS0205F**

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**SSR1009M & Z**  
**SSR1010M & Z**

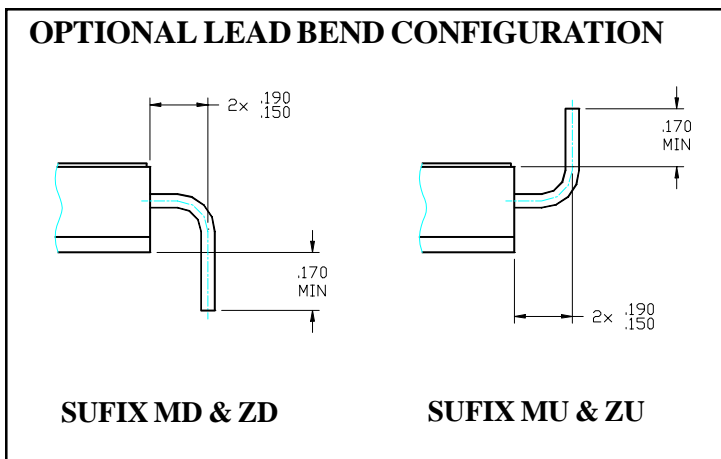
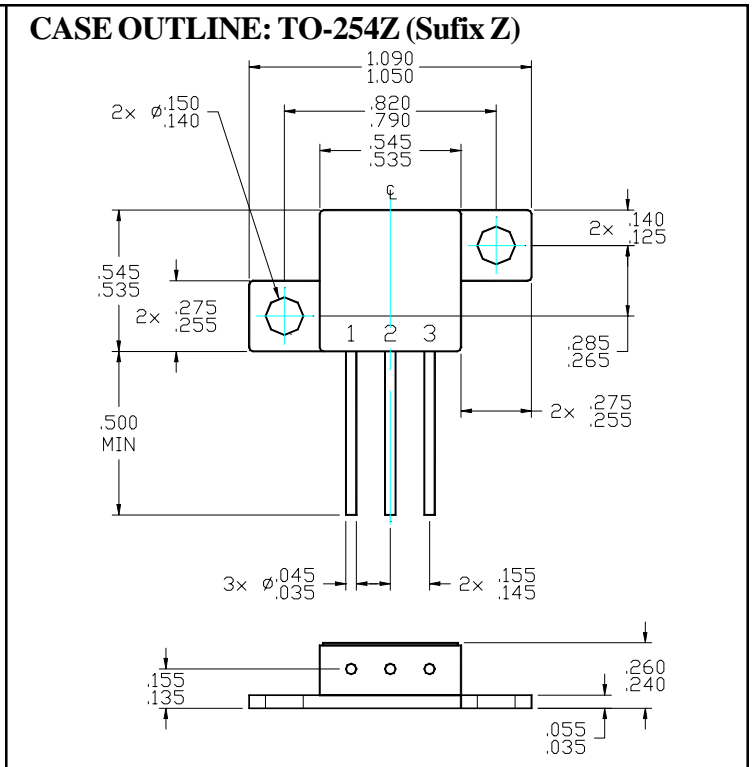
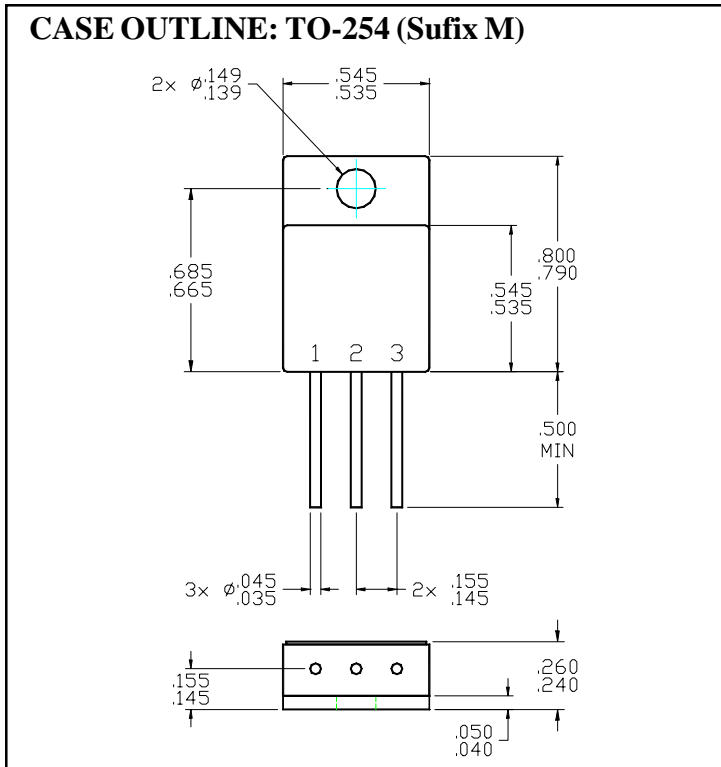
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Electrical Characteristics (Per Leg)	SYMBOL	MINIMUM	MAXIMUM	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $T_A = 25^\circ\text{C}$ , 300 $\mu\text{sec}$ Pulse)	$I_F = 1\text{A}$ $V_{F1}$	--	<b>0.60</b>	$V_{DC}$
	$I_F = 5\text{A}$ $V_{F2}$	--	<b>0.80</b>	
	$I_F = 10\text{A}$ $V_{F3}$	--	<b>0.92</b>	
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10\text{A}$ , 300 $\mu\text{sec}$ pulse)	$T_A = 100^\circ\text{C}$ $V_{F4}$	--	<b>0.83</b>	$V_{DC}$
	$T_A = -55^\circ\text{C}$ $V_{F5}$	--	<b>1.07</b>	
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu\text{s}$ pulse min.)	$T_A = 25^\circ\text{C}$ $I_{R1}$	--	<b>50</b>	$\mu\text{A}$
	$T_C = 100^\circ\text{C}$ $I_{R2}$	--	<b>2</b>	mA
<b>Junction Capacitance</b> ( $V_R = 10V_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )	$C_J$	--	<b>400</b>	pF



**PIN ASSIGNMENT**

CODE	FUNCTION	PIN 1	PIN 2	PIN 3
--	Rectifier	Cathode	Anode	Anode
D	Doubler	Cathode	Common	Anode
DR	Doubler, Reverse	Anode	Common	Cathode