

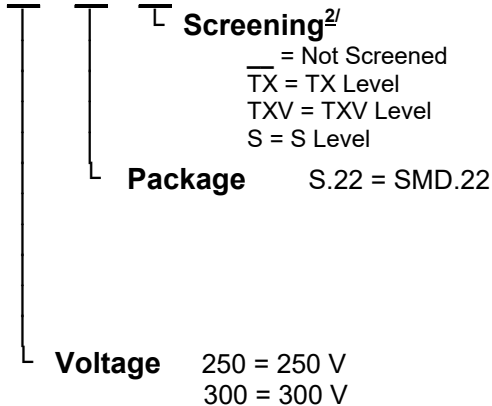


# SSR08250S.22 thru SSR08300S.22

## Designer's Data Sheet

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

SSR08



**8 AMP  
HERMETIC SURFACE MOUNT  
SCHOTTKY RECTIFIER  
250 - 300 VOLTS**

### FEATURES:

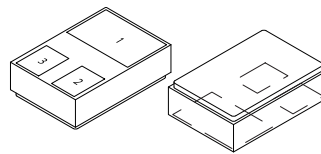
- Extremely Small Footprint
- Extremely Low Forward Voltage Drop: 0.99 V typ
- High Voltage: 300 V
- Hermetically Sealed Surface Mount Package
- Low Thermal Resistance: 2.5°C/W typ
- 175°C Operating Junction Temperature
- TX, TXV, and S level Screening Available - Consult Factory

MAXIMUM RATINGS <sup>3/ 4/</sup>	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SSR08250 SSR08300	$V_{RRM}$ $V_{RWM}$ $V_R$	250 300 Volts
Average Rectified Forward Current (Resistive load, 60 Hz, sine wave, $T_A = 25^\circ\text{C}$ )		$I_O$	8 Amps
Peak Surge Current (8.3 ms pulse, half sine wave superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ )		$I_{FSM}$	80 Amps
Operating & Storage Temperature		$T_{OP}$ & $T_{stg}$	-65 to +175 °C
Maximum Thermal Resistance (Junction to Case)		$R_{\theta JC}$	4.0 (typ 2.5) °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/ Unless otherwise specified, all electrical characteristics @25°C.
- 4/ For optimal performance, connect anode terminals together.

### SMD.22 (S.22)



(dime used for size reference)



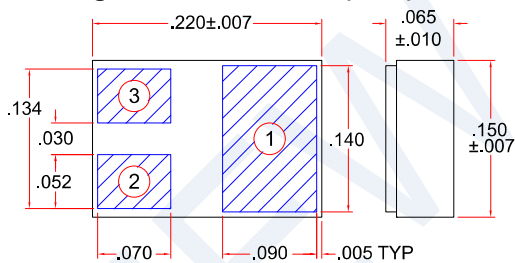
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 Phone: (562) 404-4474 \* Fax: (562) 404-1773  
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**SSR08250S.22 thru  
 SSR08300S.22**

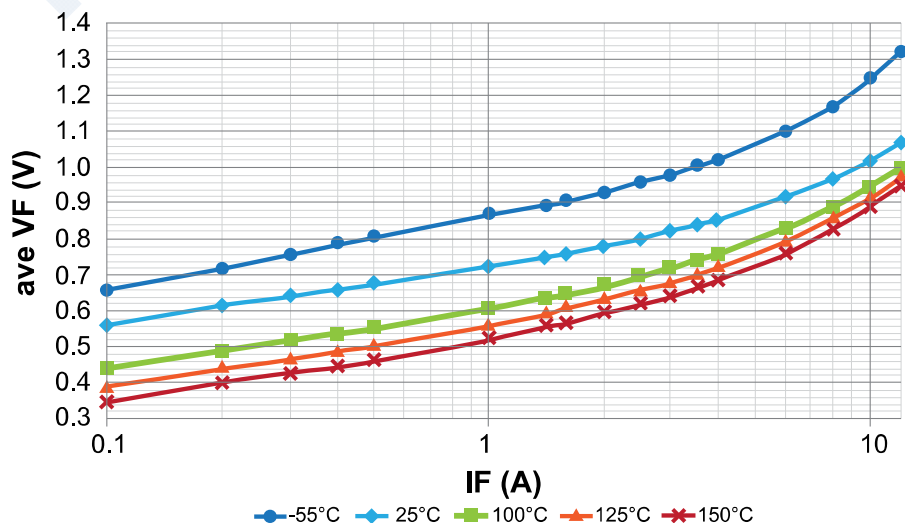
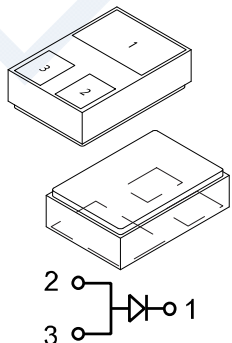
ELECTRICAL CHARACTERISTICS <sup>4/</sup>		Symbol	Min	Typ	Max	Units
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = 25°C, 300 µsec pulse)	I <sub>F</sub> = 0.5 A	V <sub>F1</sub>	-	0.68	-	V <sub>DC</sub>
	I <sub>F</sub> = 1.0 A	V <sub>F2</sub>	-	0.73	0.77	
	I <sub>F</sub> = 2.5 A	V <sub>F3</sub>	-	0.81	-	
	I <sub>F</sub> = 4.0 A	V <sub>F4</sub>	-	0.87	0.92	
	I <sub>F</sub> = 8.0 A	V <sub>F5</sub>	-	0.99	1.04	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = -55°C, 300 µsec pulse)	I <sub>F</sub> = 0.5 A	V <sub>F6</sub>	-	0.80	-	V <sub>DC</sub>
	I <sub>F</sub> = 1.0 A	V <sub>F7</sub>	-	0.86	-	
	I <sub>F</sub> = 2.5 A	V <sub>F8</sub>	-	0.94	-	
	I <sub>F</sub> = 4.0 A	V <sub>F9</sub>	-	0.99	-	
	I <sub>F</sub> = 8.0 A	V <sub>F10</sub>	-	1.12	-	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = 125°C, 300 µsec pulse)	I <sub>F</sub> = 0.5 A	V <sub>F11</sub>	-	0.51	-	V <sub>DC</sub>
	I <sub>F</sub> = 1.0 A	V <sub>F12</sub>	-	0.56	0.62	
	I <sub>F</sub> = 2.5 A	V <sub>F13</sub>	-	0.66	0.72	
	I <sub>F</sub> = 4.0 A	V <sub>F14</sub>	-	0.73	-	
	I <sub>F</sub> = 8.0 A	V <sub>F15</sub>	-	0.86	0.92	
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300 µsec pulse minimum)		I <sub>R1</sub>	-	0.1	5	µA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, 300 µsec pulse minimum)		I <sub>R2</sub>	-	10	-	µA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 125°C, 300 µsec pulse minimum)		I <sub>R3</sub>	-	70	250	µA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 150°C, 300 µsec pulse minimum)		I <sub>R4</sub>	-	200	-	µA
<b>Junction Capacitance</b> (f = 1MHz, T <sub>A</sub> = 25°C)	V <sub>R</sub> = 5 V	C <sub>J</sub>	-	76	-	pF
	V <sub>R</sub> = 10 V			55	70	

**Package Outline: SMD.22 (S.22)**



PIN OUT:  
 PIN 1: CATHODE  
 PIN 2: ANODE  
 PIN 3: ANODE

Note: For optimal performance, connect anode terminals 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 #: SH0116A**

**DOC**