Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, CA 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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NEW PRODUCT

SSR05250S.22 thru SSR05300S.22

Designer's Data Sheet

Part Number / Ordering Information[1/]

SSR05 ___ ___ ___

- **Screening**[2/]
  - __ = Not Screened
  - TX = TX Level
  - TXV = TXV Level
  - S = S Level
- **Package** S.22 = SMD.22
- **Voltage** 250 = 250 V, 300 = 300 V

5 AMP HERMETIC SURFACE MOUNT SCHOTTKY RECTIFIER
250 - 300 VOLTS

FEATURES:

- Extremely Small Footprint
- Extremely Low Forward Voltage Drop: 0.93 V typ
- High Voltage: 300 V
- Hermetically Sealed Surface Mount Package
- Low Thermal Resistance: 3.5°C/W typ
- 175°C Operating Junction Temperature
- TX, TXV, and S level Screening Available - Consult Factory

MAXIMUM RATINGS[3/ 4/]		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	**SSR05250** **SSR05300**	V_{RRM} V_{RWM} V_R	250 300	**Volts**
Average Rectified Forward Current (Resistive load, 60 Hz, sine wave, T_A = 25°C)		I_O	5	**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°C)		I_{FSM}	50	**Amps**
Operating & Storage Temperature		T_{OP} & T_{stg}	-65 to +175	**°C**
Maximum Thermal Resistance (Junction to Case)		$R_{\theta JC}$	6.5 (typ 3.5)	**°C/W**

NOTES:

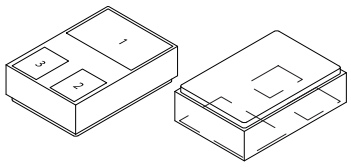
1/ For ordering information, price, and availability - contact factory.

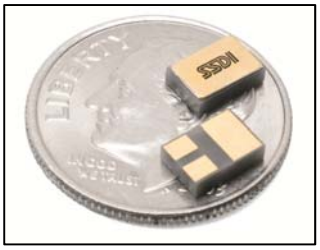
2/ Screening based on MIL-PRF-19500. Screening flows available on request.

3/ Unless otherwise specified, all electrical characteristics @25°C.

4/ For optimal performance, connect anode terminals together.

SMD.22 (S.22)





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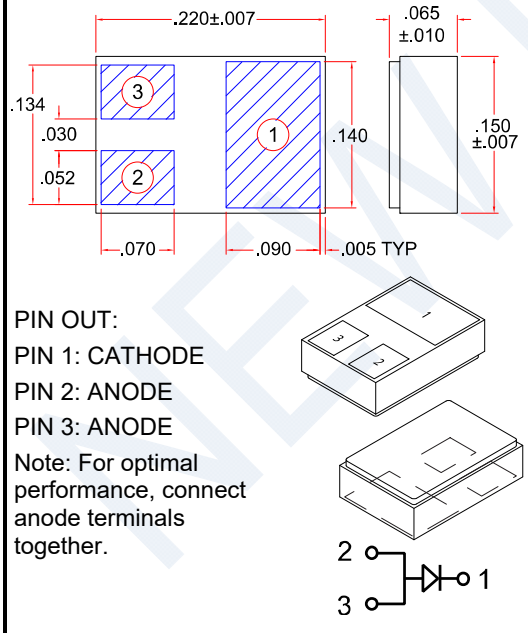
SSR05250S.22 thru SSR05300S.22

ELECTRICAL CHARACTERISTICS[4/]		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (T_A=25°C, 300 µsec pulse)	I_F = 0.5 A I_F = 1.0 A I_F = 2.5 A I_F = 5.0 A	V_{F1} V_{F2} V_{F3} V_{F4}	-	0.71 0.76 0.84 0.93	- 0.82 0.87 -	V_{DC}
Instantaneous Forward Voltage Drop (T_A=-55°C, 300 µsec pulse)	I_F = 0.5 A I_F = 1.0 A I_F = 2.5 A I_F = 5.0 A	V_{F5} V_{F6} V_{F7} V_{F8}	-	0.83 0.88 0.95 1.03	- - -	V_{DC}
Instantaneous Forward Voltage Drop (T_A=125°C, 300 µsec pulse)	I_F = 0.5 A I_F = 1.0 A I_F = 2.5 A I_F = 5.0 A	V_{F9} V_{F10} V_{F11} V_{F12}	-	0.55 0.60 0.70 0.81	- 0.69 0.76 -	V_{DC}
Reverse Leakage Current (Rated V_R, T_A = 25°C, 300 µsec pulse minimum)		I_{R1}	-	0.1	5	µA
Reverse Leakage Current (Rated V_R, T_A = 100°C, 300 µsec pulse minimum)		I_{R2}	-	5	-	µA
Reverse Leakage Current (Rated V_R, T_A = 125°C, 300 µsec pulse minimum)		I_{R3}	-	20	500	µA
Reverse Leakage Current (Rated V_R, T_A = 150°C, 300 µsec pulse minimum)		I_{R4}	-	100	-	µA
Junction Capacitance (f = 1MHz, T_A = 25°C)	V_R = 5V V_R = 10V	C_J	-	45 35	- 50	pF

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.