Solid State Devices, Inc.
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SDR8300 - SDR8400
SDR8300SMS - SDR8400SMS

Designer's Data Sheet

Part Number/Ordering Information[1/]

SDR ___ ___ ___

- **Screening**[2/]
  - __ = Not Screened
  - TX = TX Level
  - TXV = TXV Level
  - S = S Level
- **Package Type**
  - __ = Axial Leaded
  - SMS = Surface Mount Square Tab
- **Voltage/Family**
  - 8300 = 300 V
  - 8400 = 400 V

8.0 AMP
300 – 400 VOLTS
35 ns HYPERFAST RECOVERY RECTIFIER

FEATURES:

- Hyperfast Reverse Recovery: 35 ns Maximum[4/]
- Hermetically Sealed
- Low Forward Voltage Drop: 1.02 V Maximum
- Void Free Chip Construction
- For High Efficiency Applications
- Available in Axial & Square Tab Versions
- High Current Replacement for 1N6626 – 1N6627
- TX, TXV, and S-Level Screening Available[2/]

MAXIMUM RATINGS[3/]

RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage And DC Blocking Voltage	SDR8300 SDR8400	V_{RRM} V_{RWM} V_R	300 400	**V**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA = 25°C)		I_O	8.0	**A**
Peak Surge Current (8.3 ms pulse, half sine wave, superimposed on Io, allow junction to reach equilibrium between pulses, T_A = 25°C)		I_{FSM}	135	**A**
Operating & Storage Temperature		T_J and T_{STG}	-65 to +175	**°C**
Thermal Resistance	Junction to Lead for Axial, L =.375" Junction to End Tab for Surface Mount	$R_{\theta JL}$ $R_{\theta JE}$	20 12	**°C/W**

NOTES: Pulsed per MIL-STD-750.

1/ For ordering Information, price, operating curves, 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/ I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25°C.

Axial Leaded **SMS**

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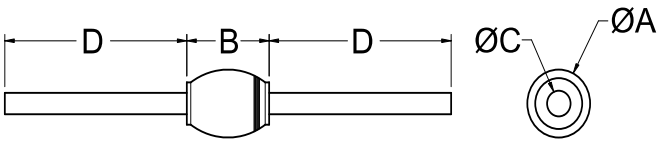
ELECTRICAL CHARACTERISTICS 3/

CHARACTERISTICS		SYMBOL	VALUE	UNIT
			MAX	
Instantaneous Forward Voltage Drop I_F = 8.0 Adc, pulsed	T_A = +25°C T_A = -55°C	V_{F1} V_{F2}	1.02 1.15	**Vdc**
Reverse Leakage Current Rated V_R, pulsed	T_A = +25°C T_A =+100°C	I_{R1} I_{R2}	20 1	**µA** **mA**
Junction Capacitance V_R = 10 Vdc, f = 1 MHz, T_A = 25°C		C_J	100	**pF**
Reverse Recovery Time I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25°C		t_{rr}	35	**ns**

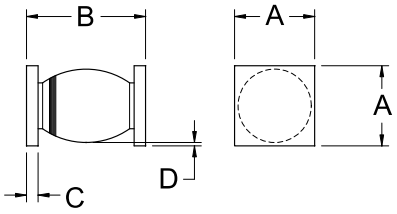
Package Outlines:

DIMENSIONS (inches)			DIMENSIONS (inches)		
DIM.	Minimum	Maximum	DIM.	Minimum	Maximum
A	.130	.170	A	.172	.180
B	---	.240	B	.200	.290
C	.038	.042	C	.020	.035
D	1.000	---	D	.002	---

AXIAL



SMS



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