



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR047/01

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDR047/01—

- L Screening^{2/} = None
- TX = TX Level
- TXV = TXV Level
- S = S Level

0.5 AMP
5000 Volts
180 nsec
Vf MATCHED HIGH VOLTAGE
RECTIFIER PAIR

Features:

- Matched diode Pair within 5% of Vf
- Fast Recovery: 180 nsec Max.
- PIV 5000 Volts
- Hermetically Sealed
- Metallurgically Bonded Construction
- 175°C Maximum Operating Temperature
- TX, TXV, and S-Level Screening Available^{2/}

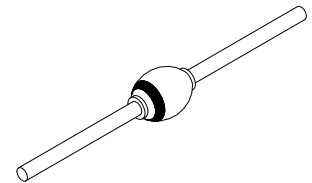
Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	5000	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_C = 55^\circ\text{C}$)	I_o	500	mAmps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , Allow Junction to Reach Equilibrium Between Pulses, $T_C = 25^\circ\text{C}$)	I_{FSM}	25	Amps
Operating & Storage Temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	18	°C/W

Notes:

^{1/} For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.

^{2/} Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

Axial Leaded



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

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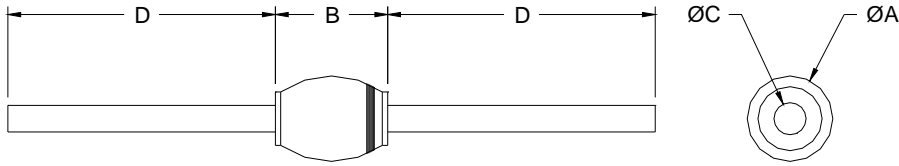
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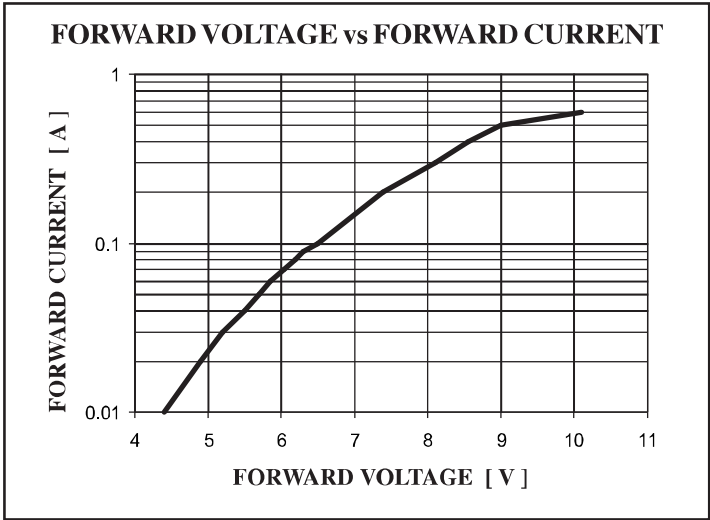
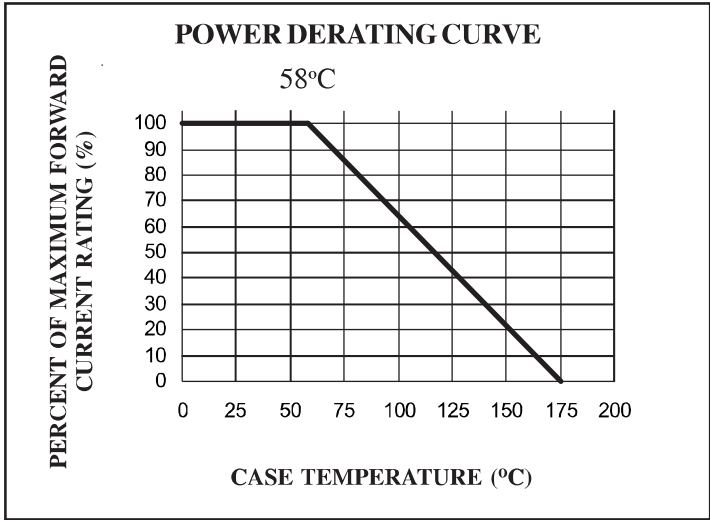
Electrical Characteristics	Part Type	Symbol	Max	Units
Instantaneous Forward Voltage Drop ($I_F = 0.5A_{dc}$, $T_A = 25^\circ C$, 300-500 μs pulse)		V_{F1}	13	Vdc
Instantaneous Forward Voltage Drop ($I_F = 0.5A_{dc}$, $T_A = 25^\circ C$, 300-500 μs pulse)		ΔV_F	5	%
Reverse Leakage Current (Rated V_R , 300 μs pulse minimum)	$T_J = 25^\circ C$	I_{R1}	51.0	μA
	$T_J = 100^\circ C$	I_{R2}	25	
Junction Capacitance ($V_R = 100 V_{dc}$, $T_A = 25^\circ C$, $f = 1MHz$)		C_J	10	pF
Reverse Recovery Time ($I_F = 500 mA$, $I_R = 1A$, $I_{RR} = 0.25A$, $T_A = 25^\circ C$)		t_{rr}	180	nsec

Case Outline: (Axial)



DIMENSIONS		
DIM	MIN	MAX
A	---	.300"
B	---	.425"
C	.047"	.063"
D	.400"	---

TYPICAL OPERATING CURVES



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