Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR5PUF thru SDR5TUF Series

Designer's Data Sheet

Part Number/Ordering Information [1/]

SDR5 ___ ___ ___ ___

- **Screening** [2/]
  - __ = Not Screened
  - TX = TX Level
  - TXV = TXV Level
  - S = S Level
- **Package Type**
  - __ = Axial Leaded
  - SMS = Surface Mount Square Tab
- **Recovery Time**
  - UF = Ultrafast Recovery (70 ns maximum)
- **Voltage/Family**
  - P = 1300V
  - R = 1400V
  - T = 1500V

5.0 AMPS ULTRAFAST RECOVERY RECTIFIER

1300 – 1500 VOLTS

FEATURES:

- **PIV to 1500 Volts**
- **Hermetically Sealed**
- **Low Reverse Leakage Current**
- **Single Chip Construction**
- **Replaces Larger DO-4 Rectifiers**
- **Low Thermal Resistance**
- **Available in Axial & Square Tab Versions**
- **TX, TXV, and S-Level Screening Available** [2/]
- **Standard and Fast Recovery Versions Available- Contact Factory**

MAXIMUM RATINGS [3/]

RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage And DC Blocking Voltage	SDR5PUF SDR5RUF SDR5TUF	V_{RRM} V_{RWM} V_R	1300 1400 1500	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA = 25°C)		I_O	5.0	**Amps**
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}	35	**Amps**
Operating & Storage Temperature		T_J and T_{STG}	-65 to +175	**°C**
Thermal Resistance	Junction to Lead for Axial, L =.125" Junction to End Tab for Surface Mount	$R_{\theta JL}$ $R_{\theta JE}$	8 4	**°C/W**

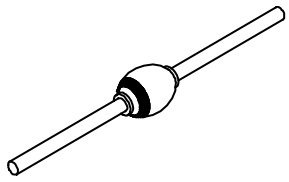
NOTES:

1/ For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.

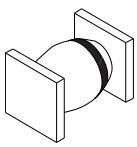
2/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

3/ Unless Otherwise Specified, All Electrical Characteristics @25ºC.

Axial Leaded



SMS



Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR5PUF thru SDR5RUF Series

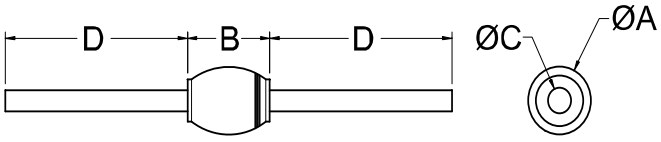
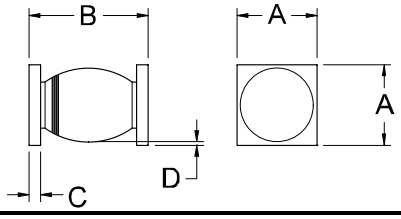
ELECTRICAL CHARACTERISTICS[3/]

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (pulsed)	I_F = 5.0 Adc, T_A = +25°C I_F = 1.0 Adc, T_A = +25°C I_F = 5.0 Adc, T_A = -55°C	V_{F1} V_{F2} V_{F3}	3.20 1.80 3.40	**Vdc**
Reverse Leakage Current (V_R = 80% rated)	T_A = +25°C T_A =+100°C	I_{R1} I_{R2}	4.0 150	**µA**
Minimum Breakdown Voltage (I_R = 50 uA)	SDR5PUF SDR5RUF SDR5TUF	B_{VR}	1300 1400 1500	**V (min)**
Junction Capacitance (V_R = 10 Vdc, f = 1MHz, T_A = 25°C)		C_J	50	**pF**
Reverse Recovery Time (I_F = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25°C)		t_{rr}	70	**ns**

Package Outlines:

DIMENSIONS (inches)			DIMENSIONS (inches)		
DIM.	Minimum	Maximum	DIM.	Minimum	Maximum
A	---	.170	A (SMS)	.170	.180
B	.210	.250	B	.260	.300
C	.037	.043	C	.020	.030
D	1.000	---	D	.002	---

AXIAL



SMS