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

SPR2KUF thru SPR2NUF

REVERSE TRANSIENT RATED
OPTIMIZED FOR USE IN T.W.T. APPLICATIONS

2 Amp
ULTRA FAST RECTIFIER
800-1200 Volts
50 nsec

Designer's Data Sheet

Part Number/Ordering Information [1/]

SPR2___ ___ ___ ___

- **Screening** [2/]
  - ___ = Not Screened
  - TX = TX Level
  - TXV = TXV
  - S = S Level
- **Package Type**
  - ___ = Axial
  - SMS = Surface Mount Square Tab
- **Reverse Recovery**
  - UF = Ultra Fast Recovery
- **Device Type** (V_{RWM})
  - K = 800V
  - M = 1000V
  - N = 1200V

FEATURES:
- Ultra Fast Reverse Recovery Time: 50 nsec Max
- PIV to 1200 Volts
- Reverse Transient Rated: 1 Amp (Typ 1200Wpk
- Hermetically Sealed
- For High Efficiency Applications
- Available in Axial and Surface Mount Versions
- Metallurgically Bonded
- Solid Silver Leads for High Thermal Conductivity
- TX, TXV, and S-Level Screening Available [2/]

MAXIMUM RATINGS [3/]

RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage **DC Blocking Voltage**	SPR2K SPR2M SPR2N	V_{RRM} V_{RWM} V_R	800 1000 1200	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, T_C = 25°C)		I_O	2	Amps
Peak Surge Current (8.3ms pulse, half sine wave superimposed on Io, allow junction to reach equilibrium between pulses, T_A = 25°C)		I_{FSM}	25	Amps
Operating & Storage Temperature		T_{OP} and T_{STG}	-65 to +175	°C
Maximum Thermal Resistance	Junction to Leads, L=3/8"(Axial) Junction to End Tab (SMS)	$R_{\theta JL}$ $R_{\theta JE}$	38 7.0	°C/W

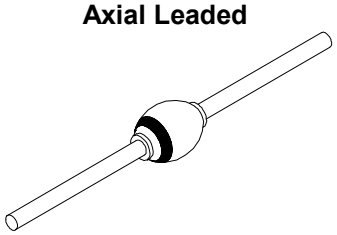
NOTES:

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

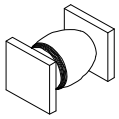
2/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

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

Axial Leaded



SMS



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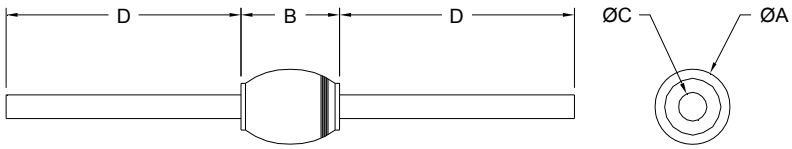
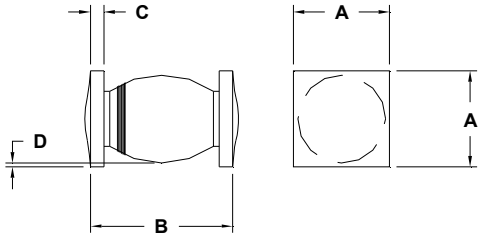
CHARACTERISTICS	SYMBOL	MAX	UNIT
Instantaneous Forward Voltage Drop (I_F = 0.75A / I_F = 2A) (T_A = 25°C, 300 µs Pulse)	V_F	2.1 / 3.1	Vdc
Reverse Leakage Current (VR = rated, 300-500 µs Pulse Minimum , T_A = 25°C)	I_{R1}	5	µA
Maximum Reverse Leakage Current (VR = 80% rated, 300 µs Pulse Minimum , T_A = 125°C)	I_{R2}	120	µA
Junction Capacitance (T_A = 25°C , f = 1MHz, V_R = 10V)	C_J	22	pf
Reverse Recovery Time (I_F = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25°C)	t_{rr}	50	nsec
Reverse Energy Test (Half sine wave, tp = 600ns @ 50% of I_P)	I_{PK}	1 (Minimum)	A

AXIAL



SMS



DIM	AXIAL MIN	AXIAL NOM	AXIAL MAX	SMS MIN	SMS MAX
A	---	---	.140”	.140”	.150”
B	---	---	.180”	.190”	.230”
C	---	.030”	---	.019”	.028”
D	.97”	---	---	.001”	---