



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

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 (VRWM)

K = 800V

M = 1000V

N = 1200V

SPR2KUF thru SPR2NUF

REVERSE TRANSIENT RATED

OPTIMIZED FOR USE IN T.W.T. APPLICATIONS

2 Amp
ULTRA FAST RECTIFIER
800-1200 Volts
50 nsec

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

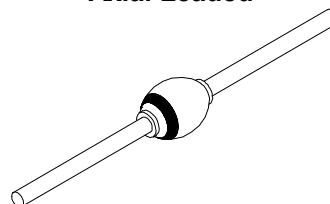
NOTES:

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

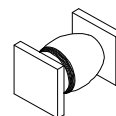
^{2/} Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

^{3/} Unless Otherwise Specified, All Electrical Characteristics @25°C.

Axial Ledged



SMS



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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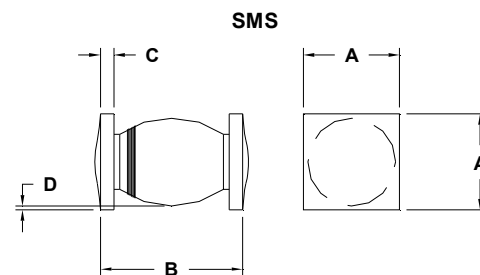
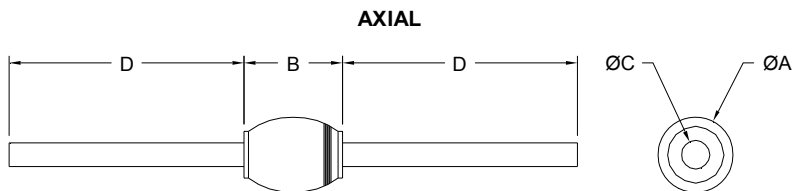


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SPR2KUF thru SPR2NUF

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



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

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