SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR2UF1.8 and SMS
SDR2UF2.0 and SMS

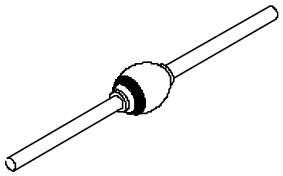
Designer's Data Sheet

2 AMP
1800 - 2000 VOLTS
70 nsec
ULTRA FAST RECOVERY RECTIFIER

FEATURES:

- **Ultra Fast Recovery: 70 nsec maximum.**
- **PIV to 2400 Volts.**
- **Low Reverse Leakage Current.**
- **Hermetically Sealed.**
- **Low Thermal Resistance**
- **TX, TXV, and Space Level Screening Available**
- **Fast Recovery Available. Contact Factory.**
- **Single Junction Construction.**
- **Replaces 1N6512 and 1N6513 in many applications.**

AXIAL **SURFACE MOUNT (SMS)**



Maximum Ratings		SYMBOL	VALUE	UNITS
Reverse Voltage	**SDR2UF1.8 & SMS** **SDR2UF2.0 & SMS**	V_{RRM} V_{RWM} V_R	**1800** **2000**	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T_L or T_E = 55 °C)		**Io**	**2**	**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}	**50**	**Amps**
Temperature Range	**Operating** **Storage**	T_{OP} T_{STG}	**-65 TO +175** **-65 TO +200**	**°C**
Maximum Thermal Resistance Junction to Lead, L = .125" (Axial Lead) Junction to End Tab (Surface Mount)		R_{2JL} R_{2JE}	**6** **4**	**°C/W**

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

DATA SHEET #: RC0063B

SDR2UF1.8 and SMS
SDR2UF2.0 and SMS

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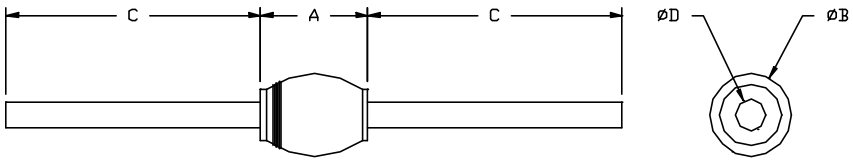
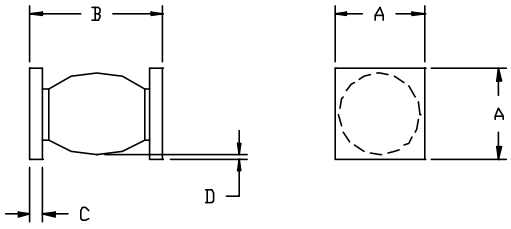
Electrical Characteristics		SYMBOL	MIN	MAX	UNITS
Breakdown Voltage (I_R = 50 : A, T_A = 25°C, 300 : s min Pulse)	**SDR2UF1.8 & SMS** **SDR2UF2.0 & SMS**	**BV_R**	-- --	**1800** **2000**	**V**
Instantaneous Forward Voltage Drop (T_A = 25°C, 300 - 500 : s Pulse)	I_F = 1A I_F = 2A	**V_{F1}** **V_{F2}**	-- --	**3.60** **4.20**	**V_{DC}**
Instantaneous Forward Voltage Drop (T_A = -55°C, 300 - 500 : s Pulse)	I_F = 1A I_F = 2A	**V_{F3}** **V_{F4}**	-- --	**3.80** **4.60**	**V_{DC}**
Reverse Leakage Current (V_R = 85% Rated V_R, T_A = 25°C, 300 : s min Pulse)		**I_{R1}**	--	**1.5**	**: A**
Reverse Leakage Current (V_R = 85% Rated V_R, T_A = 100°C, 300 : s min Pulse)		**I_{R2}**	--	**200**	**: A**
Junction Capacitance (V_R = 50V, f = 1 MHz, T_A = 25°C)		**C_J**	--	**20**	**pF**
Reverse Recovery Time (I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25°C)		**t_{RR}**	--	**70**	**nsec**

CASE OUTLINE: AXIAL LEAD



DIMENSIONS		
DIM	MIN.	MAX.
A	0.240	0.270"
B	--	0.170"
C	1.00"	--
D	.045"	.051"

CASE OUTLINE: SMS



DIMENSIONS		
DIM	MIN.	MAX.
A	0.170"	0.180"
B	0.290"	0.330"
C	0.020"	0.030"
D	0.002"	--

NOTES:
Consult manufacturing for operating curves.