PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada,CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

SDR6K and SDR6M

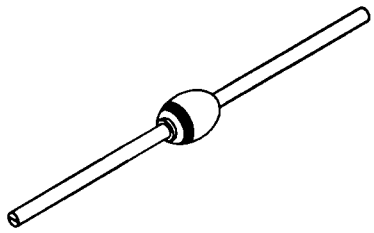
Designer's Data Sheet

6 AMP 800-1000 VOLTS 60-70 nsec ULTRA FAST RECTIFIER

FEATURES:

- Ultra Fast Recovery: 60-70 nsec Max. @ 25°C
  115-120 nsec Max. @ 100°C
- Single Chip Construction
- PIV to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- Replaces larger DO-4 Rectifiers
- Available in Surface Mount versions
- Metallurgically Bonded
- TX, TXV and Space Level Screening Available

AXIAL



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage **SDR6K** **SDR6M**	V_{RRM} V_{RWM} V_R	800 1000	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I_O	6	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, TA=25°C)	I_{FSM}	150	**Amps**
Operating and storage temperature	**Top & Tstg**	-65 to +175	**°C**
Maximum Thermal Resistance Junction to Leads, L=3/8"	$R_{\theta JL}$	12	**°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 #: RU0017 A**	**RMD**

SDR6K thru SDR6M

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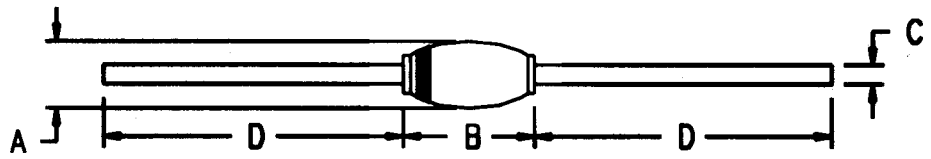
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (I_F = 6 Adc, T_A=25°C, 300µs Pulse)		VF	1.9	Vdc
Instantaneous Forward Voltage Drop (I_F = 6 Adc, T_A=-55°C, 300µs Pulse)		VF	2.1	Vdc
Reverse Leakage Current (Rated VR, T_A=25°C, 300µs pulse minimum)		IR	10	µA
Reverse Leakage Current (Rated V_R, T_A=100°C, 300µs pulse minimum)		IR	1	mA
Junction Capacitance (V_R = 10 Vdc, T_A=25°C, f= 1MHz)		CJ	80	pf
Reverse Recovery Time (I_F =500ma, I_R = 1A, I_{RR}=250mA, T_A=25°C)	SDR6K SDR6M	trr	60 70	nsec

CASE OUTLINE:



DIMENSIONS		
DIM	MIN.	MAX.
A	---	.200"
B	---	.270"
C	.055"	.063"
D	.400"	---

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified