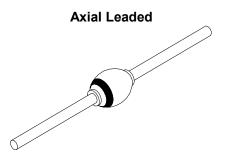
SSD Solid State Devices, Inc.	SDR6K and SDR6M
14701 Firestone Blvd * La Mirada, Ca 90638 Phone: (562) 404-4474 * Fax: (562) 404-1773 ssdi@ssdi-power.com * www.ssdi-power.com	6.0 AMPS 800 — 1000 VOLTS 90 nsec ULTRA FAST RECTIFIER
Designer's Data Sheet Part Number/Ordering Information ^{1/} SDR6	 FEATURES: Ultra Fast Recovery: 90 ns Max @ 25°C^{4/} Single Chip Construction PIV to 1000 Volts Low Reverse Leakage Current Hermetically Sealed For High Efficiency Applications Metallurgically Bonded Replaces Larger DO-4 Rectifiers TX, TXV, and S-Level Screening Available Available in Surface Mount Versions

MAXIMUM RATINGS 3/

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse SDR6K Voltage SDR6M And SDR6M DC Blocking Voltage	V _{RRM} V _{RWM} V _R	800 1000	Volts
Rectified Forward Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A = 25^{\circ}C$)	lo	6	Amp
Peak Surge Current (8.3 msec Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, $T_A = 25^{\circ}C$)	I _{FSM}	150	Amps
Operating & Storage Temperature	T _{OP} and T _{STG}	-65 to +175	°C
Thermal Resistance, Junction to Lead, L = 3/8"	R _{ejl}	12	°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 @25°C.
- $\underline{4}\!/$ Recovery Conditions: I_F = 0.5 Amp, I_R = 1.0 Amp, I_{RR} to .25 Amp.

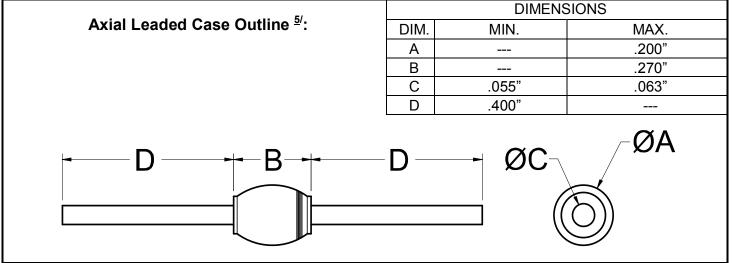




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SDR6K and SDR6M

ELECTRICAL CHARACTERISTICS ^{3/}					
CHARACTERISTICS	SYMBOL	VALUE	UNIT		
Instantaneous Forward Voltage Drop ($I_F = 6Adc$, 300 µs Pulse, $T_A = 25^{\circ}C$)	V _{F1}	2.20	Vdc		
Instantaneous Forward Voltage Drop ($I_F = 6Adc$, 300 µs Pulse, $T_A = -55^{\circ}C$)	V _{F2}	2.10	Vdc		
Maximum Reverse Leakage Current (Rated V _R , 300 μ s Pulse Minimum , T _A = 25°C)	I _{R1}	10	μA		
Maximum Reverse Leakage Current (Rated V _R , 300 μ s Pulse Minimum , T _A = 100°C)	I _{R2}	1	mA		
Junction Capacitance (VR = 10Vdc, $T_A = 25^{\circ}C$, f = 1MHz)	CJ	80	pf		
Maximum Reverse Recovery Time 4/	t _{rr}	90	ns		



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.
- 4/ Recovery Conditions: $I_F = 0.5 \text{ Amp}$, $I_R = 1.0 \text{ Amp}$, I_{RR} to .25 Amp.
- 5/ For information on operating curves, contact factory.

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: RU0017C	DOC
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