PRELIMINARY ✓

SOLID STATE DEVICES, INC

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

SDR640CT thru SDR642CT

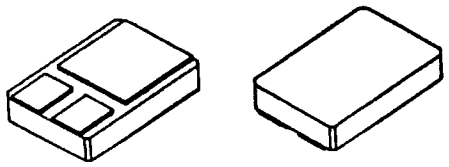
Designer's Data Sheet

80 AMP 100-200 VOLTS 35 nsec HYPER FAST CENTERTAP RECTIFIER

FEATURES:

- Replaces four 1N5816 Devices
- Hyper Fast Recovery: 35 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Surface Mount Power Package
- Gold Eutectic Die Attach available
- Ultrasonic Aluminum Wire Bonds
- TX, TXV and Space Level Screening Available

MILPACK™



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage, note 1 **SDR640CT** **SDR641CT** **SDR642CT**	V_{RRM} V_{RWM} V_R	100 150 200	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 2	I_O	80	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave,TA=25°C) note 2	I_{FSM}	500	**Amps**
Operating and storage temperature	**Top & Tstg**	-65 to +200	**°C**
Maximum Thermal Resistance Junction to Case, note 1 Junction to Case, note 2	$R_{\theta JC}$	1.45 1.0	**°C/W**

Note 1 Higher voltage class available
Note 1 Both legs tied together

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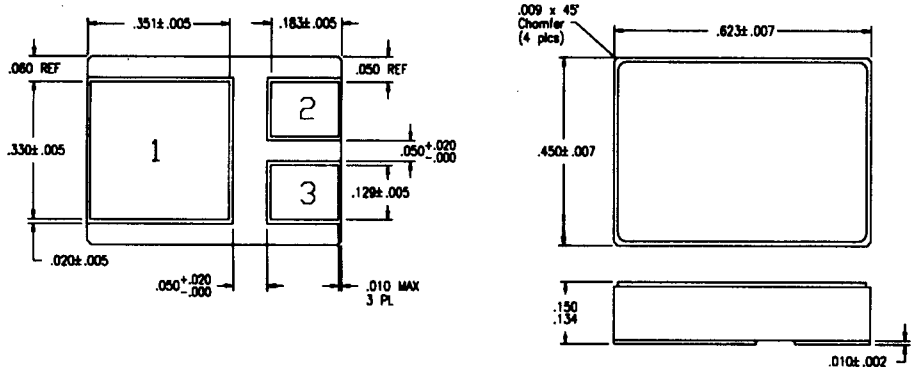
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ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 20 Adc, TA=25°C, 300µs Pulse) (IF = 40 Adc, TA=25°C, 300µs Pulse)	VF	0.97 1.10	Vdc
Instantaneous Forward Voltage Drop (IF = 20 Adc, TA= 100°C, 300µs Pulse) (IF = 20 Adc, TA= - 55°C, 300µs Pulse)	VF	0.87 1.06	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)	IR	20	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)	IR	2	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	300	pf
Reverse Recovery Time (IF=1 A, IR=1 A, IRR= 100mA, TA=25°C)	trr	35	nsec

CASE OUTLINE: MILPACK

PIN 1: CATHODE
PIN 2: ANODE 1
PIN 3: ANODE 2



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

