

**SDR640CT
 thru
 SDR642CT**

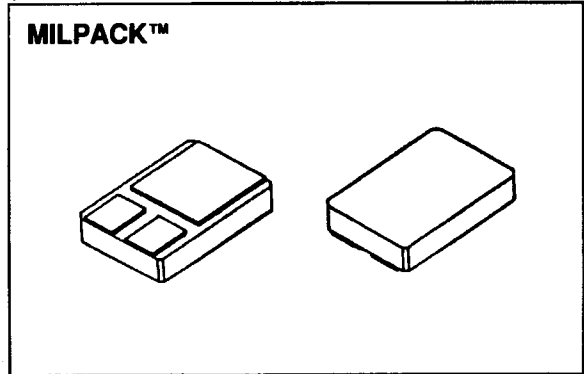
Designer's Data Sheet

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

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



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage, note 1 SDR640CT SDR641CT SDR642CT	VRRM VRWM VR	100 150 200	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 2	IO	80	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 2	IFSM	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	RθJC	1.45 1.0	°C/W

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

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PRELIMINARY



SOLID STATE DEVICES, INC

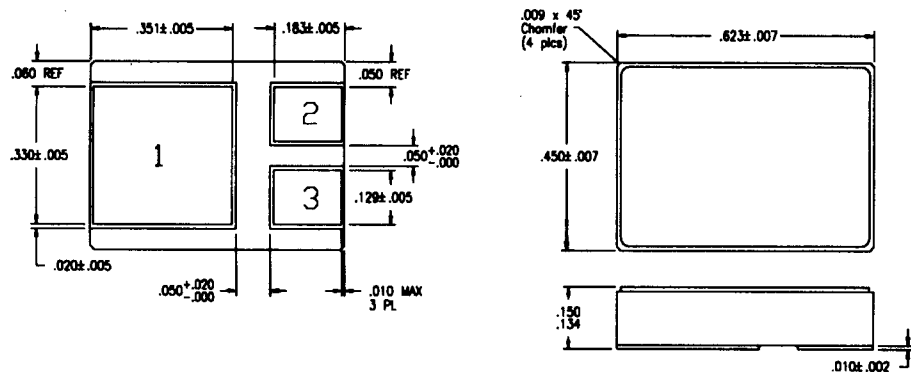
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ELECTRICAL CHARACTERISTICS (Per Leg)

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

