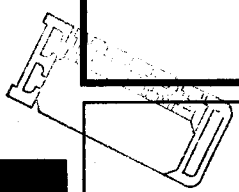
SSDI

SOLID STATE DEVICES, INC

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

PRELIMINARY ✓

SDR640CT
thru
SDR642CT



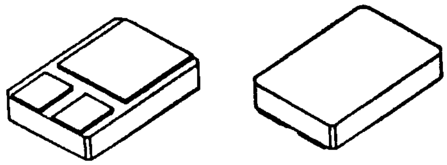
Designer's Data Sheet

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	V_{RRM} V_{RWM} V_R		Volts
SDR640CT		100	
SDR641CT		150	
SDR642CT		200	
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	$R_{\theta JC}$		°C/W
Junction to Case, note 1		1.45	
Junction to Case, note 2		1.0	

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

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	**DATA SHEET#: RH0073 A**	**MED**

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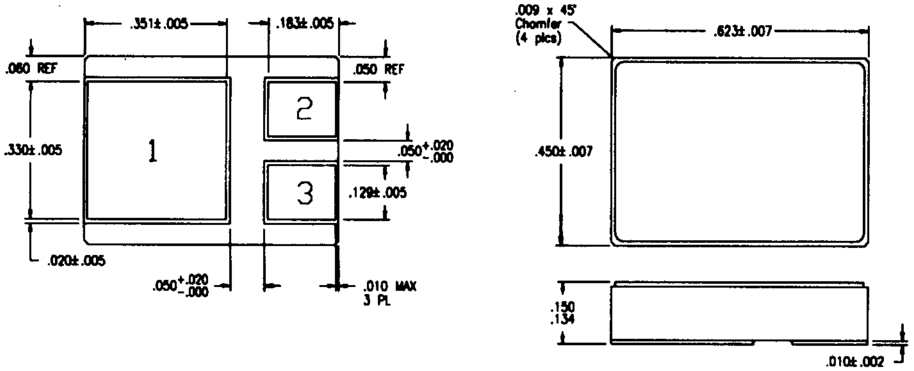
ELECTRICAL CHARACTERISTICS (Per Leg)

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