


**SDR623CT
 thru
 SDR625CT**

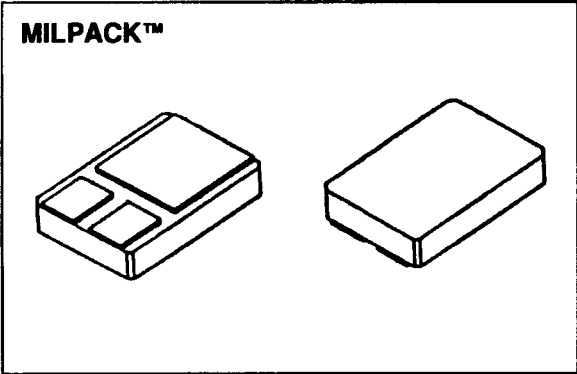
Designer's Data Sheet



**40 AMP
 300-500 VOLTS
 35 nsec
 HYPER FAST
 CENTERTAP RECTIFIER**

- FEATURES:**
- 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



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM	300	Volts
	VRWM	400	
	VR	500	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 1	IO	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 1	IFSM	600	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, note 1	RθJC	2.3	°C/W
		1.3	

note 1 Both legs tied together

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PRELIMINARY

SSDI
SOLID STATE DEVICES, INC

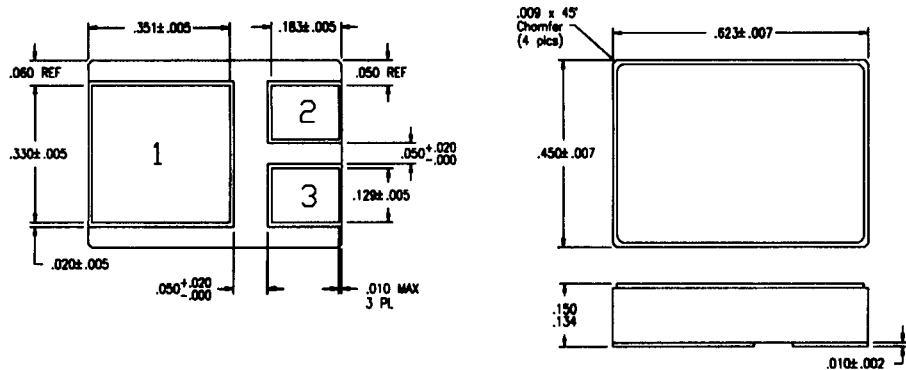
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Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 10 Adc, TA=25°C, 300µs Pulse) (IF = 20 Adc, TA=25°C, 300µs Pulse)	VF	1.35	Vdc
		1.50	
Instantaneous Forward Voltage Drop (IF = 10 Adc, TA= 100°C, 300µs Pulse) (IF = 10 Adc, TA= -55°C, 300µs Pulse)	VF	1.25	Vdc
		1.45	
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)	IR	50	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)	IR	5	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	150	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, 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

