

**SDR647CT
 thru
 SDR648CT**

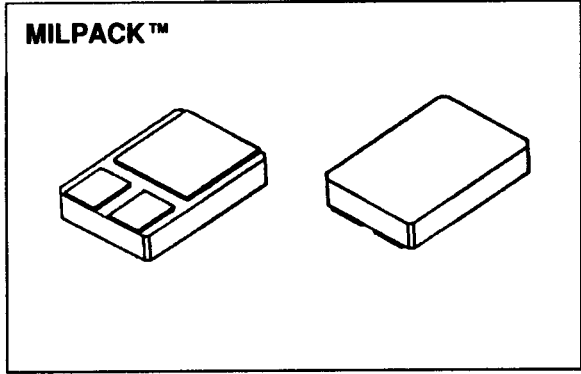


Designer's Data Sheet

- FEATURES:**
- Ultrafast Recovery: 60 nsec Maximum
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Junction Capacitance
 - Hermetically Sealed Power Surface Mount Package
 - Gold Eutectic Die Attach available
 - Ultrasonic Aluminum Wire Bonds

 - TX, TXV and Space Level Screening Available

**40 AMPS
 700-800 VOLTS
 60 nsec
 ULTRA FAST
 CENTERTAP RECTIFIER**



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR647CT SDR648CT	VRRM	700 800	Volts
	VRWM		
	VR		
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	400	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	4.2	°C/W
		1.75	

note 1 Both legs tied together

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PRELIMINARY



SOLID STATE DEVICES, INC

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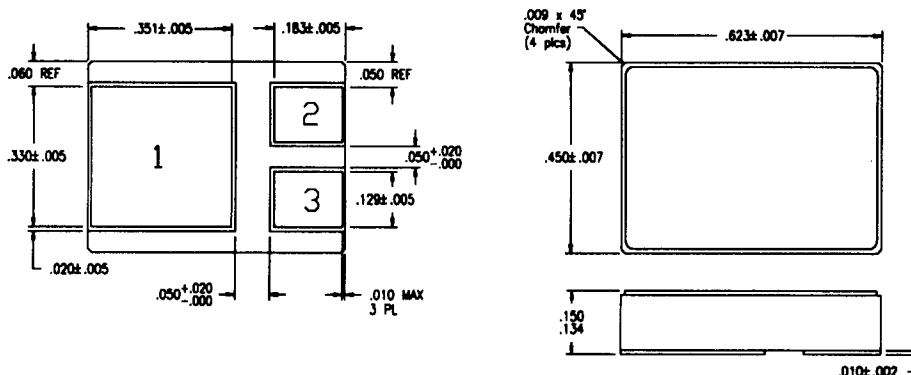
ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 10 Adc, TA=25°C, 300ms Pulse) (IF = 20 Adc, TA=25°C, 300ms Pulse)	VF	1.2 1.4	Vdc
Instantaneous Forward Voltage Drop (IF = 10 Adc, TA= 100°C, 300ms Pulse) (IF = 10 Adc, TA=-55°C, 300ms Pulse)	VF	1.12 1.30	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300ms pulse minimum)	IR	50	μA
Reverse Leakage Current (Rated VR, TA=100°C, 300ms pulse minimum)	IR	5	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	70	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	60	nsec

CASE OUTLINE: MILPACK

PIN OUT:

- PIN 1: CATHODE**
- PIN 2: ANODE 1**
- PIN 3: ANODE 2**



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

