



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR647CT-28
thru
SDR648CT-28**

Designer's Data Sheet

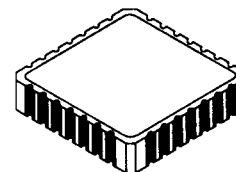
FEATURES:

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

- TX, TXV and Space Level Screening Available

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

28 PIN CLCC



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR647CT-28 SDR648CT-28	VRRM VRWM VR	700 800	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 1	IO	20*	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 1	IFSM	100*	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	11.0 4.5	°C/W

Note 1 Both legs tied together

* Package limited

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET#: RU0083 A

MED

SDR647CT-28 thru SDR648CT-28

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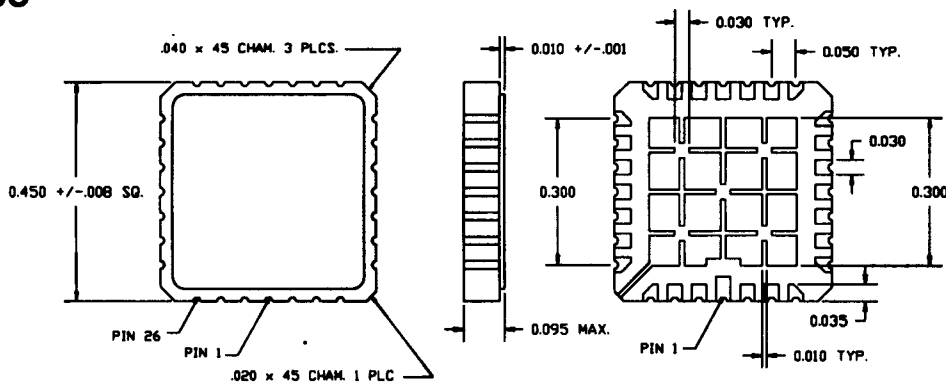
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ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 5 Adc, TA=25°C, 300ms Pulse) (IF = 10 Adc, TA=25°C, 300ms Pulse)	VF	1.15 1.25	Vdc
Instantaneous Forward Voltage Drop (IF = 5 Adc, TA= - 55°C, 300ms Pulse) (IF = 5 Adc, TA= 100°C, 300ms Pulse)	VF	1.07 1.25	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: 28 PIN CLCC PIN OUT:

CATHODE: 5-11
ANODE 1: 1, 15-28
ANODE 2: 2, 3, 13, 14



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

