

**SDR623CT/CAP6
thru
SDR625CT/CAP6**

Designer's Data Sheet

FEATURES:

- Hyperfast Recovery: 35 nsec Maximum
- Isolated low profile package
- Ceramic Feed Thrus
- Eutectic Die Attach Available
- Hermetically Sealed
- Low Reverse Leakage

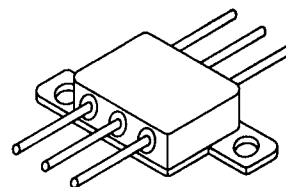
- Dual Centertap:
1 Common Anode, 1 Common Cathode

- TX, TXV and Space Level Screening Available

**40 AMP
300-500 VOLTS
35 nsec**

**COMMON ANODE & CATHODE
HYPERFAST CENTERTAP
RECTIFIER**

6 PIN TO-259



MAXIMUM RATINGS @ 25 C (Unless Otherwise Specified)

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage, note 3 SDR623CT/CAP6 SDR624CT/CAP6 SDR625CT/CAP6	VRRM VRWM VR	 300 400 500	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	80	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 2	RθJC	1.9 0.65	°C/W

Note 1 Each pair of diodes

Note 2 All legs connected together

Note 3 550V class available upon request

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

DATA SHEET #: RH0007 A

MED

SDR623CT/CAP6 thru SDR625CT/CAP6

PRELIMINARY



SOLID STATE DEVICES, INC

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

ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 10 \text{ A dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse) ($I_F = 20 \text{ A dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	V_F	1.35 1.55	Vdc
Instantaneous Forward Voltage Drop ($I_F = 10 \text{ A dc}$, $T_A = 100^\circ\text{C}$, 300 μs Pulse) ($I_F = 10 \text{ A dc}$, $T_A = -55^\circ\text{C}$, 300 μs Pulse)	V_F	1.25 1.45	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs pulse minimum)	I_R	50	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs pulse minimum)	I_R	5	mA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)	C_J	150	pf
Reverse Recovery Time ($I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$, $T_A = 25^\circ\text{C}$)	t_{rr}	35	nsec

CASE OUTLINE: TO-259-6

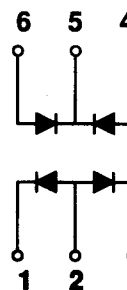
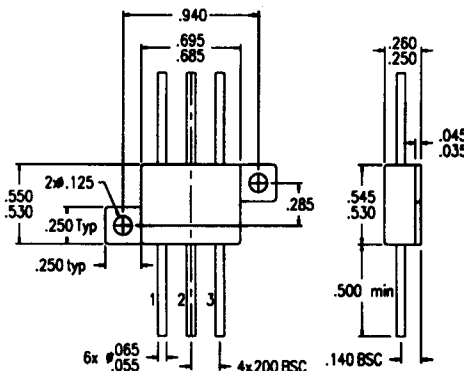
PIN OUT:

COMMON ANODE

PIN 1: CATHODE
PIN 2: ANODE
PIN 3: CATHODE

COMMON CATHODE:

PIN 4: ANODE
PIN 5: CATHODE
PIN 6: ANODE



TYPICAL OPERATING CURVES

$T_A = 25^\circ\text{C}$ Unless otherwise specified

