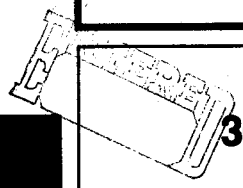
PRELIMINARY

SOLID STATE DEVICES, INC

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

SDR623CT/CAP6 thru SDR625CT/CAP6



40 AMP 300-500 VOLTS 35 nsec

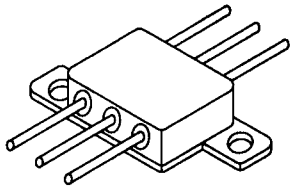
COMMON ANODE & CATHODE HYPERFAST CENTERTAP RECTIFIER

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

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**	V_{RRM} V_{RWM} V_R	300 400 500	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I_O	80	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 1	I_{FSM}	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	$R_{\theta JC}$	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

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ELECTRICAL CHARACTERISTICS (Per Leg)

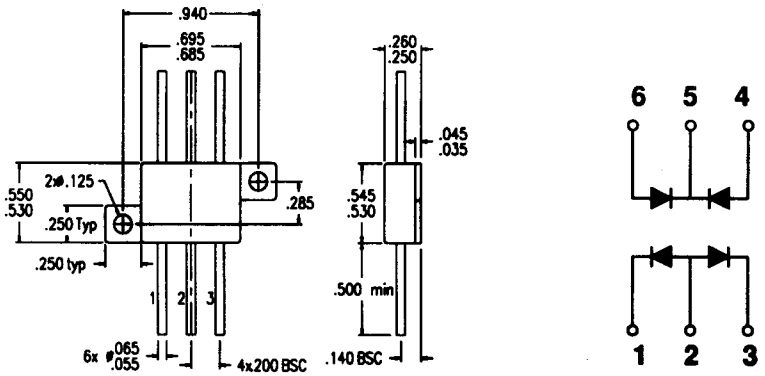
CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (I_F = 10 Adc, T_A=25°C, 300µs Pulse) (I_F = 20 Adc, T_A=25°C, 300µs Pulse)	V_F	1.35 1.55	Vdc
Instantaneous Forward Voltage Drop (I_F = 10 Adc, T_A=100°C, 300µs Pulse) (I_F = 10 Adc, T_A= -55°C, 300µs Pulse)	V_F	1.25 1.45	Vdc
Reverse Leakage Current (Rated VR, T_A=25°C, 300µs pulse minimum)	I_R	50	µA
Reverse Leakage Current (Rated V_R, T_A=100°C, 300µs pulse minimum)	I_R	5	mA
Junction Capacitance (V_R = 10 Vdc, T_A=25°C, f=1MHz)	CJ	150	pf
Reverse Recovery Time (I_F =500mA, I_R = 1A, I_{RR}=250mA, T_A=25°C)	trr	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

TA=25°C Unless otherwise specified