Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, CA 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
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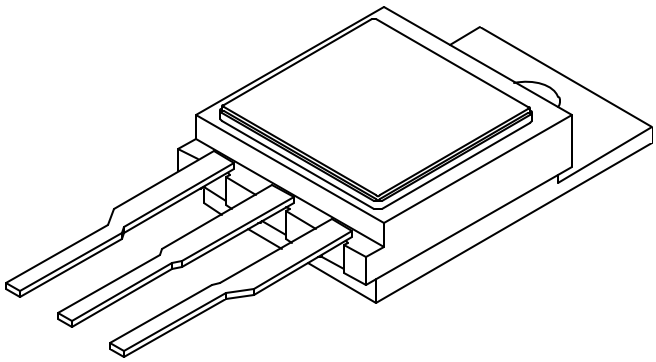
SDR623CTC Thru SDR626CTC

DESIGNER'S DATA SHEET [1/]

CERAMIC TO-254



40A 35nsec 300-600 V Hyper Fast Centertap Rectifier

Features:

- **Hyper Fast Recovery: 35nsec Maximum [3/]**
- **High Surge Rating**
- **Low Reverse Leakage Current**
- **Low Junction Capacitance**
- **Hermetically Sealed Package**
- **Gold Eutectic Die Attach**
- **Ultrasonic Aluminum Wire Bonds**
- **Common Anode and Doubler Versions Available**
- **Flat Leads for Low Inductance**
- **TX, TXV, and S-Level Screening Available [2/]**

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse Voltage	**SDR623CTC** **SDR624CTC** **SDR625CTC** **SDR626CTC**	V_{RRM} V_{RWM} V_R	300 400 500 600	**Volts**
Average Rectified Forward Current [4/] (Resistive Load, 60 Hz Sine Wave, T_A = 25 °C)		**Io**	40	**Amps**
Peak Surge Current [5/] (8.3 ms Pulse, Half Sine Wave, T_A = 25 °C)		I_{FSM}	200	**Amps**
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to +200	**°C**
Maximum Total Thermal Resistance Junction to Case [4/] Junction to Case [5/]		$R_{\theta JC}$	1.0 2.1	**°C/W**

Notes:

1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.
2/ Screened to MIL-PRF-19500.
3/ Recovery Conditions: I_F = 0.5 Amp, I_R = 1.0 Amp, rec. to .25 Amp.
4/ Both Legs Tied Together.
5/ Each Leg.

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: RH0125B	DOC

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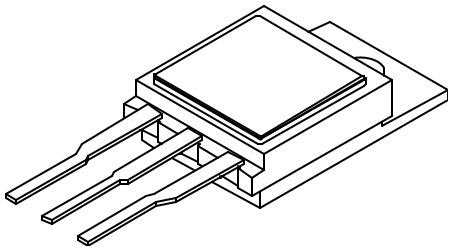
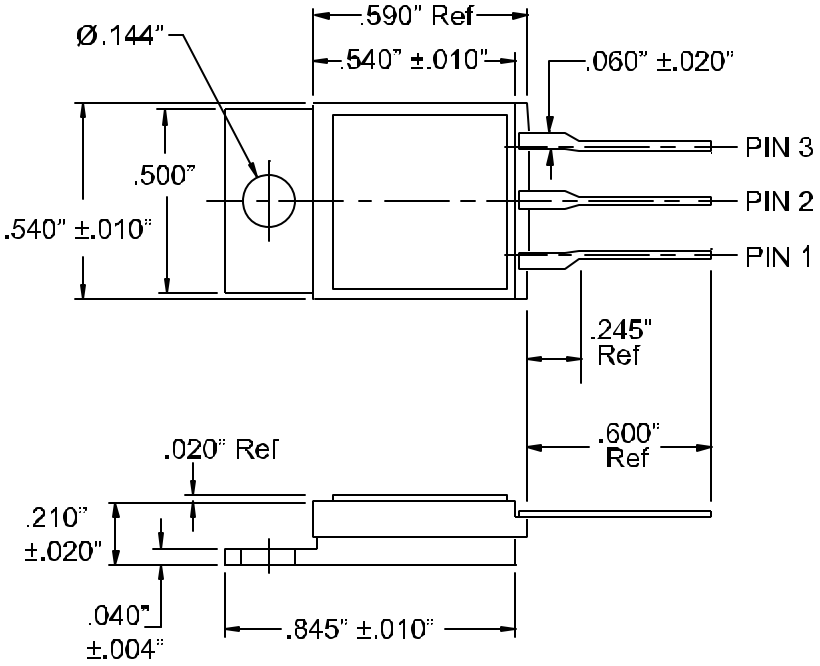
Electrical Characteristics, per leg		Symbol	Max	Units
Instantaneous Forward Voltage Drop (I_F = 10Adc, Pulse) (I_F = 20Adc, Pulse)	T_A = 25 ºC T_A = 25 ºC	V_{F1} V_{F2}	1.4 1.6	V_{DC}
Instantaneous Forward Voltage Drop (I_F = 10Adc, Pulse)	T_A = 100 ºC T_A = -55 ºC	V_{F3} V_{F4}	1.3 1.5	V_{DC}
Reverse Leakage Current (100% of rated V_R, Pulse)	T_A = 25 ºC T_A = 100 ºC	I_{R1} I_{R2}	50 5	mA mA
Reverse Recovery Time (I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A, T_A = 25ºC)		t_{rr}	35	nsec
Junction Capacitance (V_R = 10V_{DC}, T_A = 25ºC, f = 1MHz)		C_J	150	pF



PIN ASSIGNMENT			
Configuration	**Pin 1**	**Pin 2**	**Pin 3**
Common Cathode	Anode 1	Cathode	Anode 2
Common Anode	Cathode 1	Anode	Cathode 2
Doubler	Cathode	Common	Anode
Doubler Reverse	Anode	Common	Cathode

TO-254C Outline:



Tolerances, Unless Specified Otherwise - .XX ± .020"
.XXX ± .010"

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