



PRELIMINARY

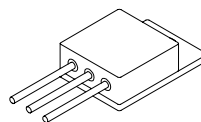
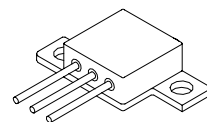
SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

Designer's Data Sheet**FEATURES:**

- **Hyper Fast Recovery: 35 nsec Maximum**
- **High Surge Rating**
- **Low Reverse Leakage Current**
- **Low Junction Capacitance**
- **Hermetically Sealed Package**
- **Gold Eutectic Die Attach Available**
- **Ultrasonic Aluminum Wire Bonds**
- **Ceramic Seal for Improved Hermeticity Available**
- **Also Available in following configurations:**
 - Common Anode: SDR623CAM & CAZ**
 - SDR624CAM & CAZ**
 - SDR625CAM & CAZ**
- **TX, TXV and Space Level Screening Available**

**SDR623CTM & Z
thru
SDR625CTM & Z****40AMPS
300 - 500 VOLTS
35 nsec
HYPER FAST
CENTERTAP RECTIFIER****TO-254 (M)****TO-254Z (Z)**

Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDR623CTM & Z	V_{RRM}	300	Volts
	SDR624CTM & Z	V_{RWM}	400	
	SDR625CTM & Z	V_R	500	
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$) <u>1/</u>		I_O	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_C = 55^\circ\text{C}$, $I_O = 50\text{A}$) <u>2/</u>		I_{FSM}	300	Amps
Operating and Storage Temperature		T_{OP} & T_{stg}	-65 TO +200	°C
Maximum Thermal Resistance Junction to Case, <u>1/</u> Junction to Case, <u>2/</u>		R_{θJC}	1.0 2.0	°C/W

NOTE:1/ Both Legs Tied Together2/ Per 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 #: RH0049B**

SDR623CTM & Z thru SDR625CTM & Z

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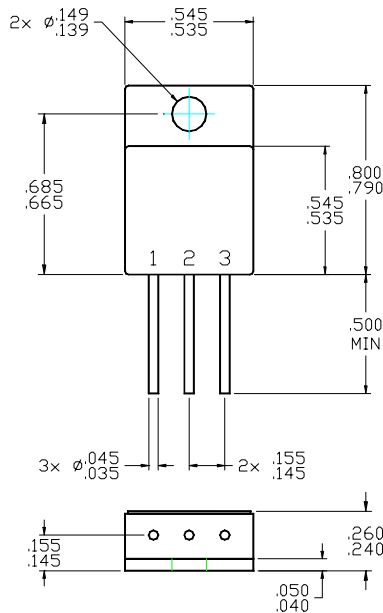


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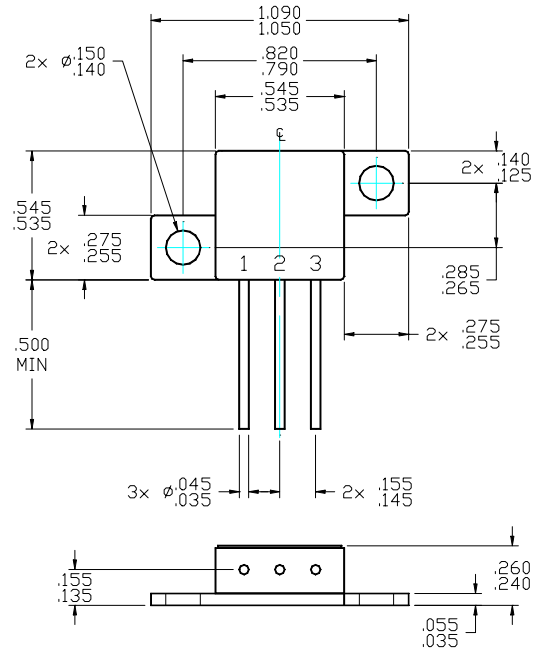
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Electrical Characteristics (Per Leg)	SYMBOL	MINIMUM	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop $I_F = 10A$ ($T_A = 25^\circ C$, 300 μ sec Pulse)	V_{F1}	--	1.35	V_{DC}
	V_{F2}	--	1.55	
Instantaneous Forward Voltage Drop $T_A = 100^\circ C$ ($I_F = 10A$, 300 μ sec pulse)	V_{F3}	--	1.25	V_{DC}
	V_{F4}	--	1.45	
Reverse Leakage Current $T_A = 25^\circ C$ (80% of Rated V_R , 300 μ s pulse min.)	I_{R1}	--	50	μA
	I_{R2}	--	5.0	mA
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ C$, $f = 1MHz$)	C_J	--	150	pF
Reverse Recovery Time ($I_F = 500mA$, $I_R = 1.0A$, $I_{RR} = 250 mA$, $T_A = 25^\circ C$)	t_{RR}	--	35	nsec

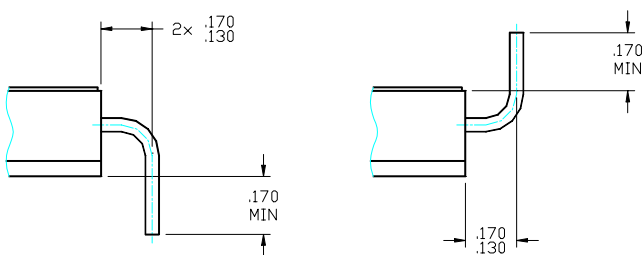
CASE OUTLINE: TO-254 (Sufix M)



CASE OUTLINE: TO-254Z (Sufix Z)



OPTIONAL LEAD BEND CONFIGURATION



SUFIX MU & ZU

PIN ASSIGNMENT

CODE	FUNCTION	PIN 1	PIN 2	PIN 3
CT	Common Cathode	Anode	Cathode	Anode
CA	Common Anode	Cathode	Anode	Cathode