



SOLID STATE DEVICES, INC.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

Designer's Data Sheet

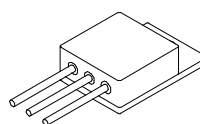
FEATURES:

- Replaces 1N6657, 1N6658, 1N6659 Devices
- 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
- TX, TXV and Space Level Screening Available

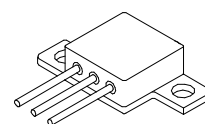
SDR620CTM & Z thru SDR622CTM & Z

40 AMPS
100 - 200 VOLTS
35 nsec
HYPER FAST
COMMON CATHODE
CENTERTAP RECTIFIER

TO-254 (M)



TO-254Z (Z)



Available in Following Configurations: ^{3/}

SDR620CTM, SDR620CTZ, SDR620CAM, SDR620CAZ, SDR620DM, SDR620DZ
 SDR621CTM, SDR621CTZ, SDR621CAM, SDR621CAZ, SDR621DM, SDR621DZ
 SDR622CTM, SDR622CTZ, SDR622CAM, SDR622CAZ, SDR622DM, SDR622DZ

Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage ^{2/}	SDR620CTM & Z SDR621CTM & Z SDR622CTM & Z	V_{RRM} V_{RWM} V_R	100 150 200	Volts
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$) ^{1/}		I_o	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$, per leg) ^{1/}		I_{FSM}	300	Amps
Operating and Storage Temperature		$T_{OP} \& T_{stg}$	-65 TO +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, ^{1/}		R_{qJC}	1.2 0.8	$^\circ\text{C/W}$

NOTES:

- ^{1/} Both Legs Tied Together
^{2/} Higher Voltages Available
^{3/} Consult Factory for Doubler Specifications

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

DATA SHEET #: RC0027E

PM

SDR620CTM & Z thru SDR622CTM & Z

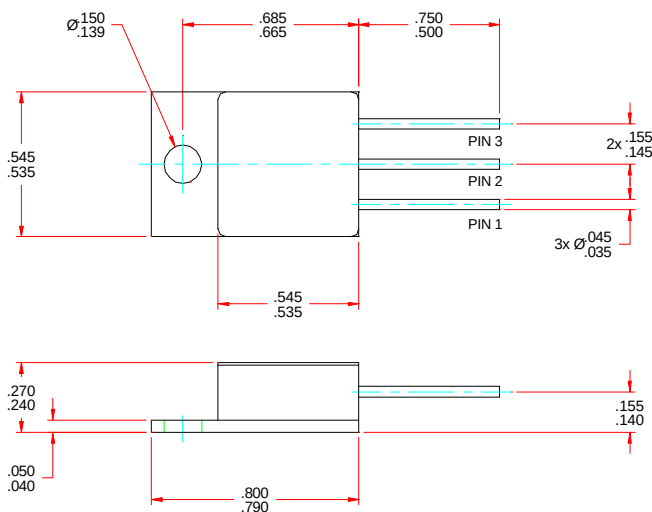


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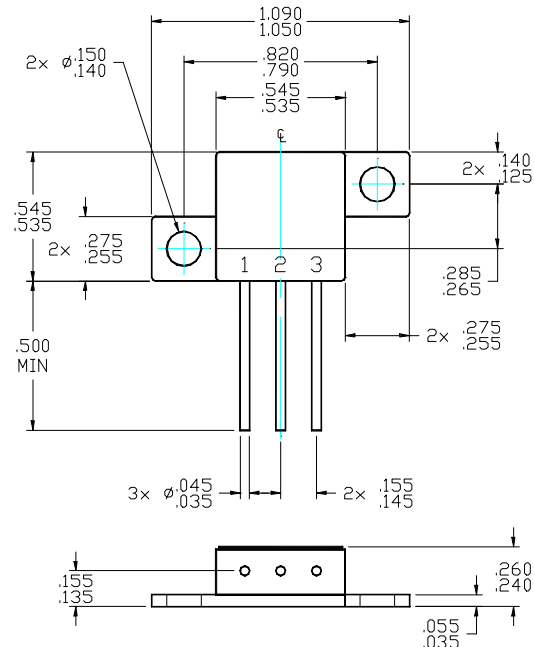
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Electrical Characteristics (Per Leg)	SYMBOL	MINIMUM	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop $I_F = 10A$ ($T_A = 25^\circ C$, 300 - 500 μsec Pulse)	V_{F1}	--	1.0	V_{DC}
	V_{F2}	--	1.2	
Instantaneous Forward Voltage Drop $T_A = 100^\circ C$ ($I_F = 10A$, 300 - 500 μsec pulse)	V_{F3}	--	0.9	V_{DC}
	V_{F4}	--	1.15	
Reverse Leakage Current $T_A = 25^\circ C$ (Rated V_R , 300 μs pulse min.)	I_{R1}	--	10	μA mA
	I_{R2}	--	1.0	
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ C$, $f = 1MHz$)	C_J	--	225	pF
Reverse Recovery Time ($T_A = 25^\circ C$, $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$)	t_{RR}	--	35	nsec

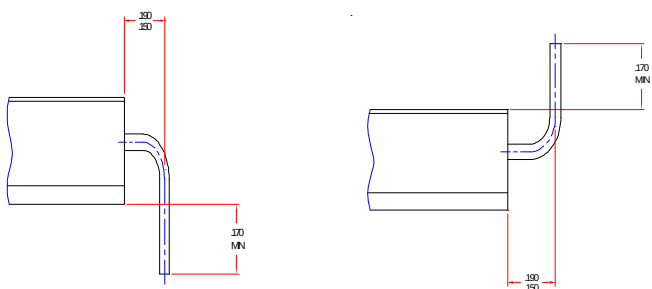
CASE OUTLINE: TO-254 (Sufix M)



CASE OUTLINE: TO-254Z (Sufix Z)



OPTIONAL LEAD BEND CONFIGURATION



SUFIX MD & ZD

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
D	Doubler	Cathode	A/C	Anode