SOLID STATE DEVICES, INC.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

SDR620CTM & Z thru SDR622CTM & Z

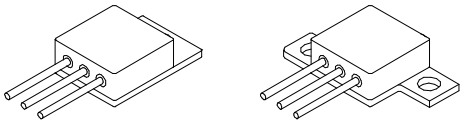
40 AMPS 100 - 200 VOLTS 35 nsec HYPER FAST COMMOM CATHODE CENTERTAP RECTIFIER

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**

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°C) 1/		**Io**	**40**	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T_A = 25°C, per leg) 1/		**I_{FSM}**	**300**	**Amps**
Operating and Storage Temperature		**T_{OP} & Tstg**	**-65 TO +200**	**°C**
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, 1/		**R_{qJC}**	**1.2** **0.8**	**°C/W**

NOTES:

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

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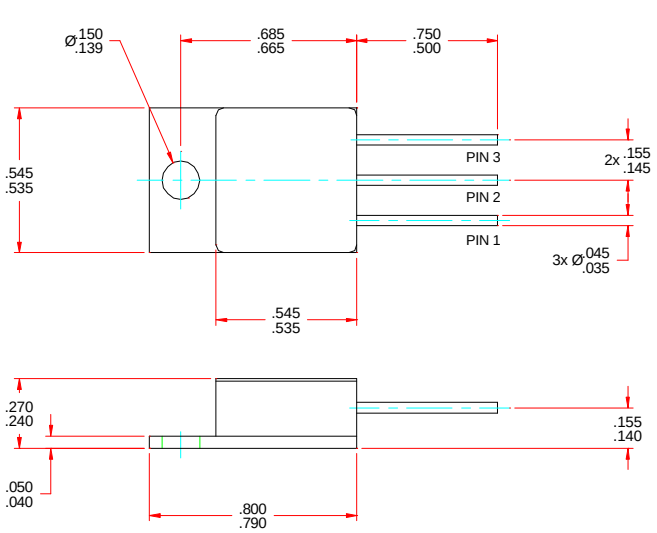
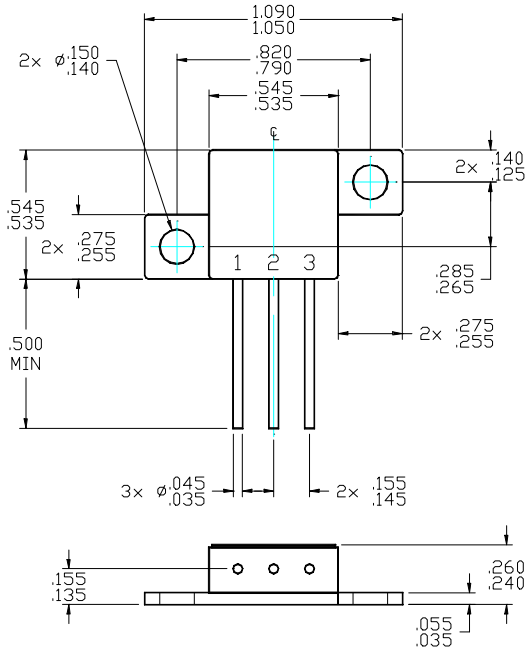
Electrical Characteristics (Per Leg)		SYMBOL	MINIMUM	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop (T_A = 25°C, 300 - 500 µsec Pulse)	I_F = 10A I_F = 20A	**V_{F1}** **V_{F2}**	-- --	**1.0** **1.2**	**V_{DC}**
Instantaneous Forward Voltage Drop (I_F = 10A, 300 - 500 µsec pulse)	T_A = 100°C T_A = -55°C	**V_{F3}** **V_{F4}**	--	**0.9** **1.15**	**V_{DC}**
Reverse Leakage Current (Rated V_R, 300µs pulse min.)	T_A = 25°C T_C = 100°C	**I_{R1}** **I_{R2}**	-- --	**10** **1.0**	**µA** **mA**
Junction Capacitance (V_R = 10V_{DC}, T_A = 25°C, f = 1MHz)		**C_J**	--	**225**	**pF**
Reverse Recovery Time (T_A= 25°C,I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A)		**t_{RR}**	--	**35**	**nsec**

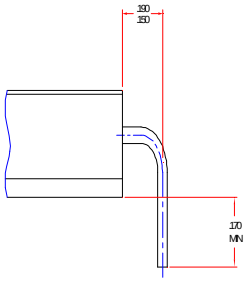
CASE OUTLINE: TO-254 (Sufix M)



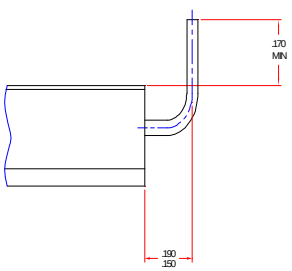
CASE OUTLINE: TO-254Z (Sufix Z)



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