



PRELIMINARY

SOLID STATE DEVICES, INC.

14005 Stage Road * Santa Fe Springs, Ca 90670

Phone: (562) 404-4474 * Fax: (562) 404-1773

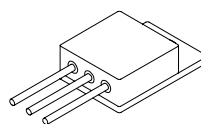
Designer's Data Sheet**FEATURES:**

- 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
- Available in common anode and doubler versions
SDR620CAM - SDR622CAM - Common Anode
SDR620DM - SDR622DM - Doubler
- TX, TXV and Space Level Screening Available

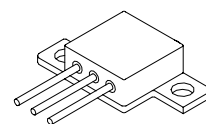
**SDR620CTM & Z
thru
SDR622CTM & Z**

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

TO-254



TO-254Z



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage <u>2/</u> 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, $T_A = 25^\circ\text{C}$) <u>1/</u>	I_o	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$, per leg)	V_{FSM}	300	Amps
Operating and Storage Temperature	$T_{OP} \text{ \& } T_{stg}$	-65 TO +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, <u>1/</u>	$R_{\theta JC}$	2.3 1.2	$^\circ\text{C/W}$

1/ Both legs tied together2/ Higher voltage available

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

DATA SHEET # : RC0027A

SDR620CTM & Z thru SDR622CTM & Z

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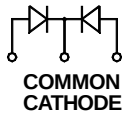
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Electrical Characteristics (per leg)	SYMBOL	VALUE	UNITS
Instantaneous Forward Voltage Drop ($I_F = 10\text{A}$ dc, $T_A = 25^\circ\text{C}$, 300 μsec pulse) ($I_F = 20\text{A}$ dc, $T_A = 25^\circ\text{C}$, 300 μsec pulse)	V_F	1.0 1.2	Vdc Vdc
Instantaneous Forward Voltage Drop ($I_F = 10\text{A}$ dc, $T_A = 100^\circ\text{C}$, 300 μsec pulse) ($I_F = 10\text{A}$ dc, $T_A = -65^\circ\text{C}$, 300 μsec pulse)	V_F	0.83 1.15	Vdc Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs pulse minimum)	I_R	10	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs pulse minimum)	I_R	1	mA
Junction Capacitance ($V_R = 10\text{Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)	C_J	150	pF
Reverse Recovery Time ($T_A = 25^\circ\text{C}$, $I_F = 1\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.1\text{A}$)	T_{RR}	35	nsec

CASE OUTLINE:

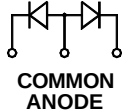
SDR620-622CT

PIN 1: ANODE 1
PIN 2: CATHODE
PIN 3: ANODE 2



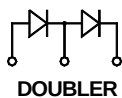
SDR620-622CA

PIN 1: CATHODE 1
PIN 2: ANODE
PIN 3: CATHODE 2



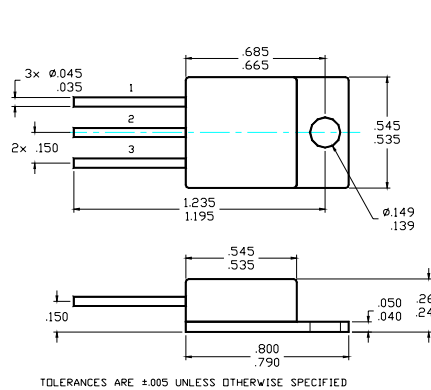
SDR620-622D

PIN 1: CATHODE
PIN 2: A/C
PIN 3: ANODE

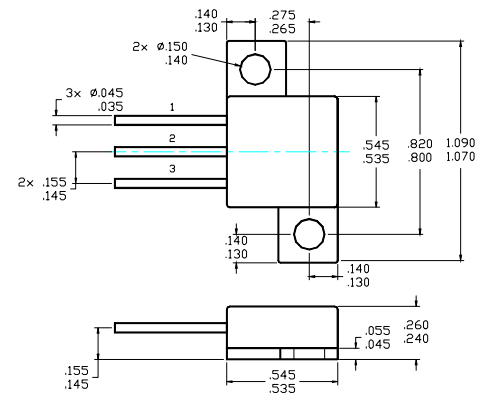


NOTE: CONSULT THE FACTORY
FOR DOUBLER SPECIFICATION

TO-254

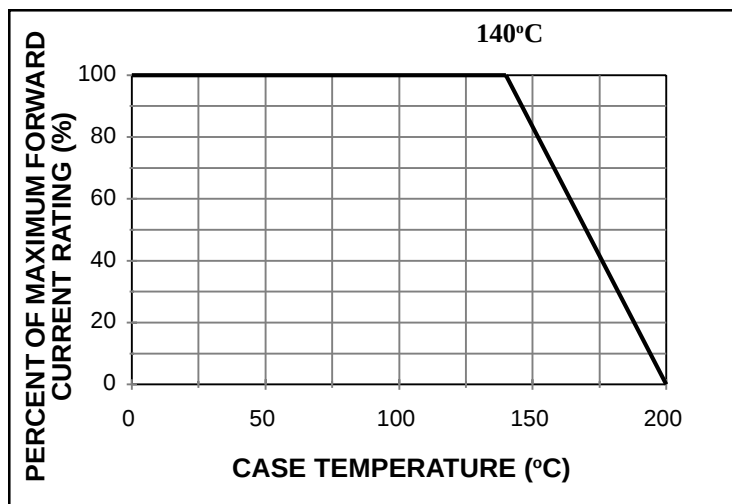


TO-254Z



TYPICAL OPERATING CURVES

$T_A = 25^\circ\text{C}$ Unless otherwise specified



TYPICAL V_F @ 25°C

