



# SOLID STATE DEVICES, INC.

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773

**SDR2410CTM  
SDR2412CTM**

## Designer's Data Sheet

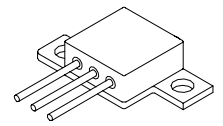
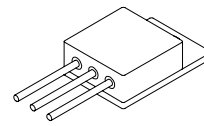
### FEATURES:

- Ultra Fast Recovery: 65 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Ultrasonic Aluminum Wire Bonds
- Ceramic Seal for Improved Hermeticity Available
- Common Anode and Doubler Versions Available
- TX, TXV and Space Level Screening Available

**24AMPS  
1200 VOLTS  
65 nsec  
ULTRAFAST  
CENTERTAP RECTIFIER**

TO-254 (M)

TO-254Z (Z)



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDR2410CTM SDR2412CTM	$V_{RRM}$ $V_{RWM}$ $V_R$	1000 1200 Volts
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ C$ ) <u>1/</u>	$I_o$	24	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_C = 55^\circ C$ , $I_O = 12A$ ) <u>2/</u>	$I_{FSM}$	75	Amps
Operating and Storage Temperature	$T_{OP} \& T_{stg}$	-65 TO +200	$^\circ C$
Maximum Thermal Resistance Junction to Case, <u>1/</u> Junction to Case, <u>2/</u>	$R_{\theta JC}$	1.2 2.4	$^\circ C/W$

### NOTE:

- 1/ Both Legs Tied Together  
2/ 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 #: RC0068A**

**SDR2410CTM  
SDR2412CTM**



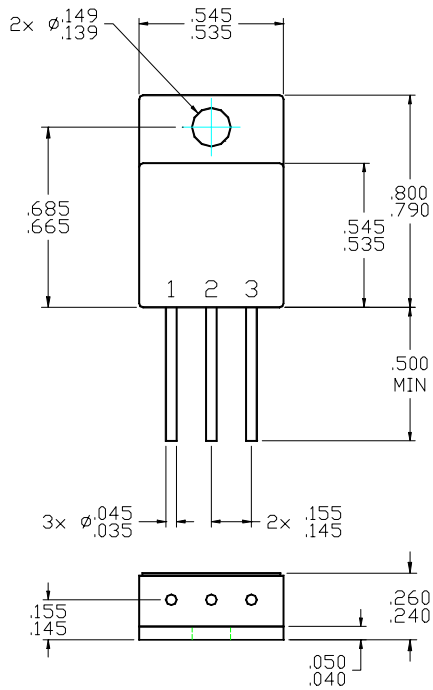
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Electrical Characteristics (Per Leg)	SYMBOL	MINIMUM	MAXIMUM	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $T_A = 25^\circ\text{C}$ , 300 $\mu\text{sec}$ Pulse) $I_F = 12\text{A}$	$V_{F1}$	—	<b>1.9</b>	$V_{DC}$
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 12\text{A}$ , 300 $\mu\text{sec}$ pulse) $T_A = 100^\circ\text{C}$ $T_A = -55^\circ\text{C}$	$V_{F2}$ $V_{F3}$	—	<b>1.8</b> <b>2.2</b>	$V_{DC}$
<b>Reverse Leakage Current</b> (80% of Rated $V_R$ , 300 $\mu\text{s}$ pulse min.) $T_A = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$	$I_{R1}$ $I_{R2}$	— —	<b>50</b> <b>2.5</b>	$\mu\text{A}$ <b>mA</b>
<b>Junction Capacitance</b> ( $V_R = 10V_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )	$C_J$	—	<b>60</b>	<b>pF</b>
<b>Reverse Recovery Time</b> ( $I_F = 500\text{mA}$ , $I_R = 1.0\text{A}$ , $I_{RR} = 250\text{mA}$ , $T_A = 25^\circ\text{C}$ )	$t_{RR}$	—	<b>65</b>	<b>nsec</b>

**CASE OUTLINE: TO-254 (Suffix M)**

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



**CASE OUTLINE: TO-254Z (Suffix Z)**

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

