



Solid State Devices, Inc.

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SSR4010CTNA SSR4010CTPA

40 AMP, 100 VOLTS SCHOTTKY RECTIFIER

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SSR4010 ^{4/}

- L **Screening** ^{2/}
 - = Not Screened
 - TX = TX Level
 - TXV = TXV
 - S = S Level
 - Lead Options** — = Straight
 - Leads, D = Bent Down, U = Bent Up
 - Package**
 - NA = TO-258 w/.040" Dia. Legs
 - PA = TO-259 w/.040" Dia. Legs
 - N = TO-258 w/.060" Dia. Legs
 - P = TO-259 w/.060" Dia. Legs
 - Configuration**
 - CT = Common Cathode,
 - CA = Common Anode, D = Doubler,
 - DR = Reverse Doubler

- FEATURES:**
- PIV 100 Volts
 - Low Forward Voltage Drop
 - Low Reverse Leakage Current
 - Isolated Hermetically Sealed Power Package
 - Ceramic Seal Package Available
 - Custom Lead Forming Available
 - Guard Ring for Overvoltage Protection
 - Gold Eutectic Die Attach
 - 175°C Operating Junction Temperature
 - TX, TXV, or Space Level Screening Available

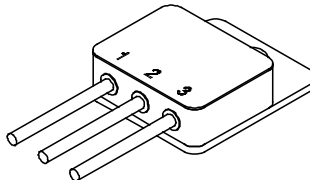
MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage and DC Blocking Voltage SSR4010CTNA, SSR4010CTPA	V_{RRM} V_{RWM} V_R	100	Volts
Average Rectified Output Current ^{3/ 4/} (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I_O	40	Amps
Peak Surge Current ^{3/ 4/} (8.3 ms Pulse, Half Sine Wave, superimposed on I_O , allow junction to reach equilibrium between pulses, TA=25°C)	I_{FSM}	400	Amps
Operating and Storage Temperature	T_{OP} & T_{STG}	-65 to +175	°C
Maximum Thermal Resistance Junction to Case ^{3/} Junction to Case (Per Leg)	$R_{\theta JC}$	0.6 1.2	°C/W

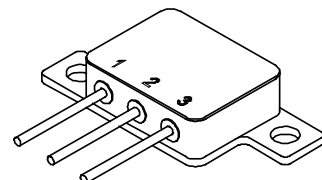
NOTES:

- ^{1/} For ordering information, price, and availability- Contact Factory
- ^{2/} Screened to MIL-PRF-19500.
- ^{3/} Both Legs Tied Together.
- ^{4/} Doubler: $I_O = 20A$, $I_{FSM} = 200A$; P/N: SSR2010DNA

TO-258



TO-259



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

DATA SHEET #: RS0099G

DOC



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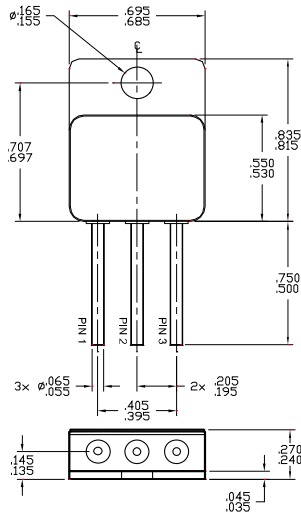
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SSR4010CTNA
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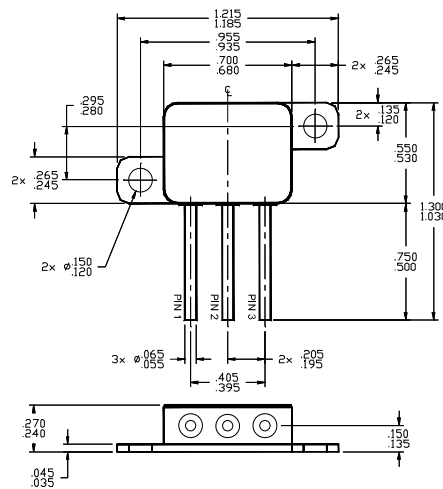
ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 10 \text{ A}$, $T_A = 25^\circ \text{C}$, Pulse) ($I_F = 15 \text{ A}$, $T_A = 25^\circ \text{C}$, Pulse) ($I_F = 20 \text{ A}$, $T_A = 25^\circ \text{C}$, Pulse)	V_{F1} V_{F2} V_{F3}	0.75 0.82 0.85	Vdc
Instantaneous Forward Voltage Drop ($I_F = 10 \text{ A}$, $T_A = -55^\circ \text{C}$, Pulse)	V_{F4}	0.84	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ \text{C}$, Pulse)	I_{R1}	200	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ \text{C}$, Pulse)	I_{R2}	10	mA
Junction Capacitance ($V_R = 10 \text{ V}$, $T_A = 25^\circ \text{C}$, $f = 1 \text{ MHz}$)	C_J	800	pF

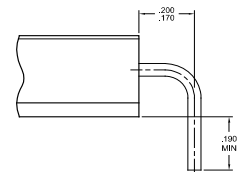
TO-258 (N Suffix)



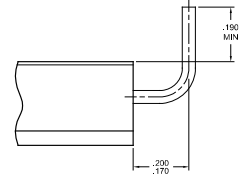
TO-259 (P Suffix)



Optional Bent Down Leads (D Suffix)



Optional with Bent Up Leads (U Suffix)



For information on curves, contact the Factory Representative for Engineering Assistance.

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	Common	Anode
DR	Reverse Doubler	Anode	Common	Cathode