Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SSR4010CTM
SSR4010CTZ
SSR4015CTM
SSR4015CTZ

Designer's Data Sheet

Part Number / Ordering Information [1/]

SSR4010
SSR4015 CT M ___ ___

Configuration
CT = Common Cathode
CA = Common Anode
D = Doubler
DR = Doubler Reverse

Package
M = TO-254
Z = TO-254Z

Lead Bend Option
__ = Straight Leads
UB = Up Bend
DB = Down Bend

Screening [2/]
__ = None
TX = TX Level
TXV = TXV Level
S = S Level

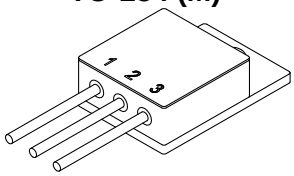
40 AMPS
100 -150 VOLTS
CENTERTAP LOW LEAKAGE
SCHOTTKY RECTIFER

FEATURES:
- PIV: 150 Volts
- Average Output Current: 25 Amps
- Very Low Reverse Leakage Current
- Low Forward Voltage Drop
- Guard Ring for Overvoltage Protection
- Isolated Hermetically Sealed Package
- Custom Lead Forming Available
- Ultrasonic Aluminum Wire Bonds
- 175°C Operating Junction Temperature
- TX, TXV, and Space Level Screening Available. Consult Factory.

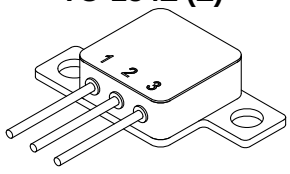
MAXIMUM RATINGS [3/]		Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	**SSR4010** **SSR4015**	V_{RRM} V_{RWM} V_R	100 150	**Volts**
Average Rectified Forward Current [4/] (Resistive load, 60 Hz, sine wave, T_A = 25°C)		I_O	20	**Amps**
Peak Surge Current [4/] (8.3 ms pulse, half sine wave, superimposed on Io, allow junction to reach equilibrium between pulses, T_A = 25°C)		I_{FSM}	175	**Amps**
Operating and Storage Temperature		T_{OP} & T_{stg}	-55 to +175	**°C**
Maximum Thermal Resistance [4/] (Junction to case)		$R_{\theta JC}$	2.0	**°C/W**

NOTES:
1/ For ordering information, price, operating curves, and availability – contact factory.
2/ Screening based on MIL-PRF-19500. Screening flows available on request.
3/ All electrical characteristics @25°C unless otherwise specified.
4/ Per leg.
5/ Pins 2 and 3 connected together

TO-254 (M)



TO-254Z (Z)



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Electrical Characteristic (per leg)		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop (I_F = 1 A_{DC}, 300 - 500 µsec pulse)	T_A = -55°C T_A = 25°C T_A = 125°C	V_{F1} V_{F2} V_{F3}	0.66 0.56 0.42	- 0.61 0.47	V_{DC}
Instantaneous Forward Voltage Drop (I_F = 5 A_{DC}, 300 - 500 µsec pulse)	T_A = -55°C T_A = 25°C T_A = 125°C	V_{F4} V_{F5} V_{F6}	0.79 0.71 0.56	- 0.79 0.64	V_{DC}
Instantaneous Forward Voltage Drop (I_F = 10 A_{DC}, 300 - 500 µsec pulse)	T_A = -55°C T_A = 25°C T_A = 125°C	V_{F7} V_{F8} V_{F9}	0.92 0.82 0.67	- 0.90 0.74	V_{DC}
Instantaneous Forward Voltage Drop (I_F = 20 A_{DC}, 300 - 500 µsec pulse)	T_A = -55°C T_A = 25°C T_A = 125°C	V_{F10} V_{F11} V_{F12}	1.05 0.93 0.79	- 1.00 0.87	V_{DC}
Reverse Leakage Current (T_A = 25°C, 300 µsec pulse minimum)	V_R = 100 V V_R = 150 V	I_{R1}	0.2 5.0	5 50	µA
Reverse Leakage Current (T_A = +125°C, 300 µsec pulse minimum)	V_R = 100 V V_R = 150 V	I_{R2}	150 500	750 2500	µA
Reverse Leakage Current (T_A = +150°C, 300 µsec pulse minimum)	V_R = 100 V V_R = 150 V	I_{R3}	0.75 2.50	-	mA
Junction Capacitance (f = 1MHz, T_A = 25°C)	V_R = 5 V V_R = 10 V	C_J	460 335	- 400	pF

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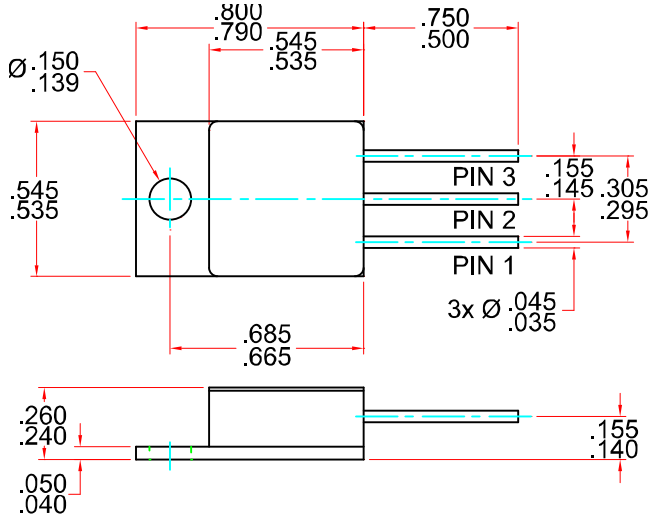
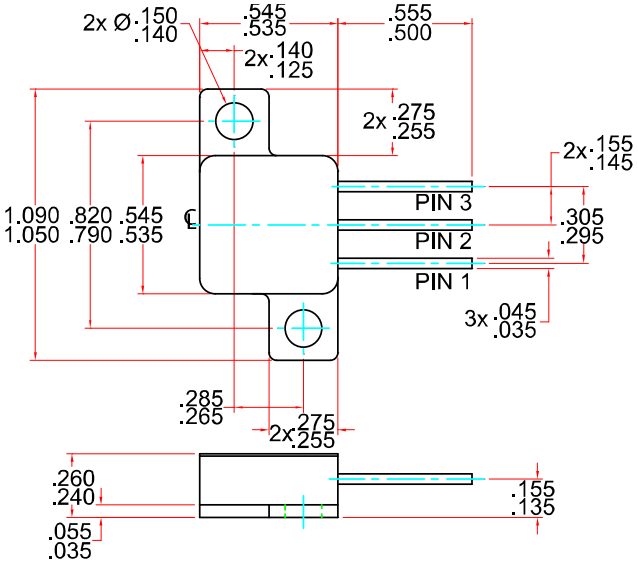
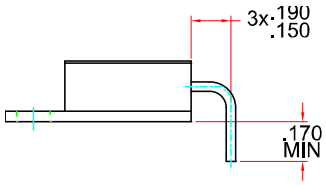
CASE OUTLINE: TO-254 (M)



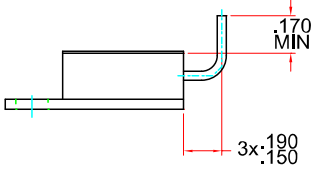
CASE OUTLINE: TO-254Z (Z)



Lead Bend Option: Down Bend (DB)



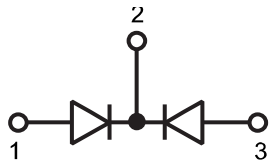
Lead Bend Option: Up Bend (UB)



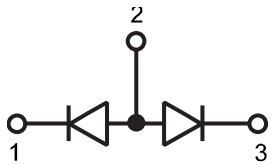
PIN ASSIGNMENT

Code	Function	Pin 1	Pin 2	Pin 3
CT	Common Cathode	Anode	Cathode	Anode
CA	Common Anode	Cathode	Anode	Cathode
D	Doubler	Cathode	AC	Anode
DR	Doubler, Reverse	Anode	AC	Cathode

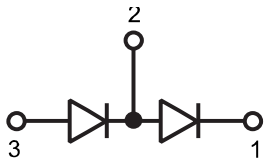
Common Cathode



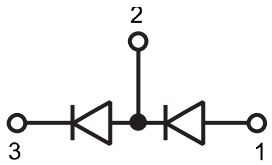
Common Cathode



Doubler



Doubler Reverse



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	**DATA SHEET #: SH0119B**	**DOC**