



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

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SSR4010

SSR4015

J

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Screening ^{2/} — = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

Lead Bending: ^{3/}

— = Straight

UB = Up Bend

DB = Down Bend

Package: ^{3/}

J = TO-257

Configuration:

CT = Common Cathode

CA = Common Anode

D = Doubler

DR = Doubler Reverse

SSR4010CTJ

SSR4015CTJ

40 AMPS, 100 - 150 VOLTS
CENTERTAP LOW LEAKAGE
SCHOTTKY RECTIFIER

FEATURES:

- PIV 150 Volts
- Low Forward Voltage Drop
- Very Low Reverse Leakage Current
- Hermetically Sealed Isolated Package
- Custom Lead Forming Available
- Ultrasonic Aluminum Wire Bonds
- Guard Ring for Overvoltage Protection
- 175°C Operating Junction Temperature
- TX, TXV, or Space Level Screening Available

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SSR4010	V_{RRM}	100	Volts
	SSR4015	V_{RWM}	150	
		V_R		
Average Rectified Output Current ^{3/} (Resistive load, 60Hz, sine wave, $T_A=25^{\circ}\text{C}$)		I_O	20	Amps
Peak Surge Current ^{3/} (8.3 ms pulse, half sine wave, superimposed on I_O , allow junction to reach equilibrium between pulses, $T_A=25^{\circ}\text{C}$)		I_{FSM}	175	Amps
Operating and Storage Temperature		T_{OP} & T_{STG}	-55 to +175	°C
Maximum Thermal Resistance	Junction to Case ^{4/}	$R_{\theta JC}$	1.0	°C/W
	Junction to Case ^{3/}		2.0	

NOTES:

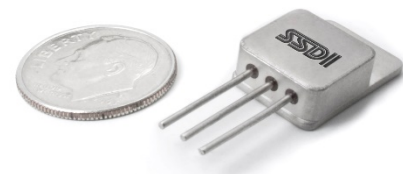
^{1/} For ordering information, price, and availability- contact factory.

^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.

^{3/} Per leg.

^{4/} Both legs tied together (EXCEPT Doubblers).

TO-257 (J)



*Dime used for size reference

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

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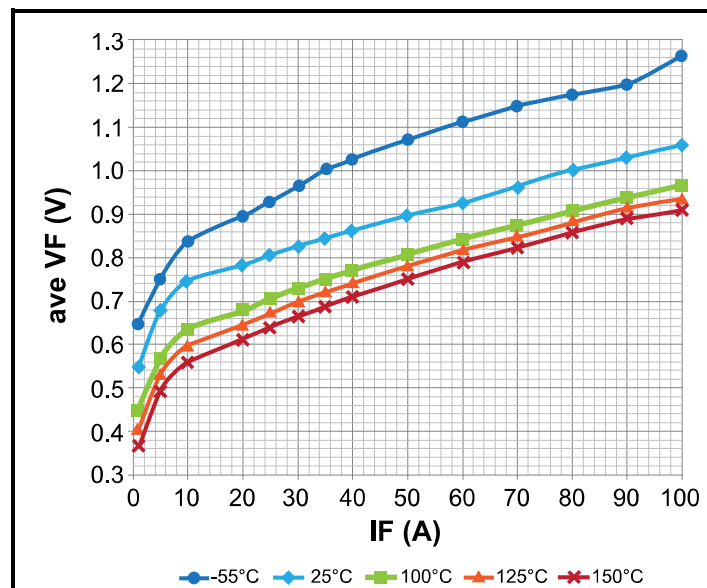
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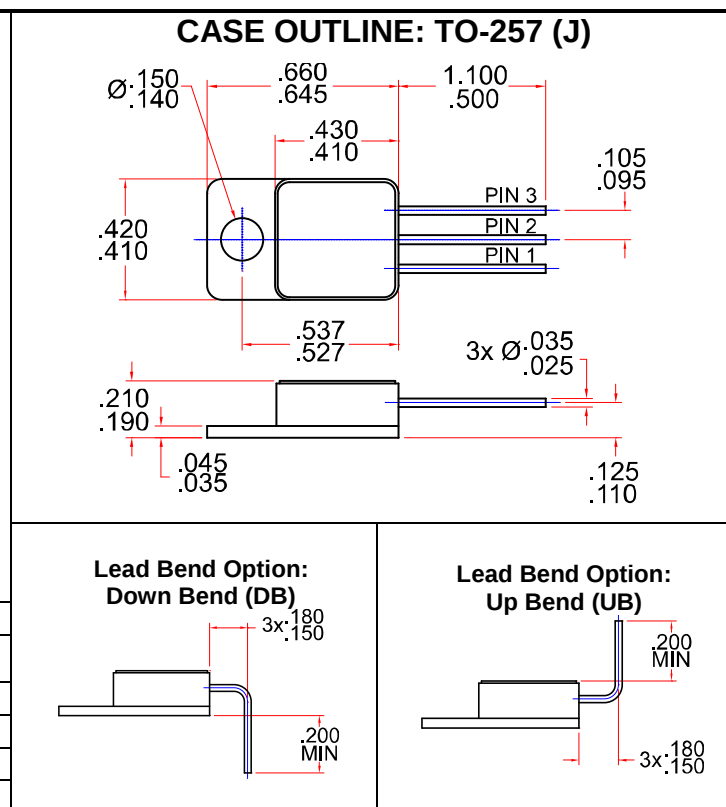
SSR4010CTJ

SSR4015CTJ

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



PIN ASSIGNMENT			
Configuration	Pin 1	Pin 2	Pin 3
Common Cathode	Anode	Cathode	Anode
Common Anode	Cathode	Anode	Cathode
Doubler	Cathode	AC	Anode
Doubler Reverse	Anode	AC	Cathode



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