



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638

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ssdi@ssdi-power.com * www.ssdi-power.com

SSR4045CTJ Series

30A 45 V SCHOTTKY CENTERTAP RECTIFIER

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SSR4045 CT J UB TX

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

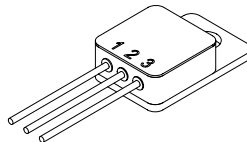
DR = Doubler Reverse

Features:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overload Protection
- Available with Ceramic Seals
- Custom Lead Forming Available
- Eutectic Die Attach
- 175°C Operating Temperature
- Hermetically Sealed Package
- TX, TXV, and S Level Screening Available

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RSM} V_R	45	Volts
Average Rectified Forward Current ^{4/} (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$)	I_O	30	Amps
Peak Surge Current ^{4/} (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)	I_{FSM}	500	Amps
Operating & Storage Temperature	T_{OP} & T_{STG}	-65 to +175	°C
Maximum Thermal Resistance Junction to Case	Total Per Leg $R_{\theta JE}$	0.9 1.8	°C/W

TO-257 (J)



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

DATA SHEET #: RS0027C

DOC



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Electrical Characteristic ^{5/}		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop (T _A = 25°C, 300 – 500usec Pulse)	I _F = 5A	V _{F1}	—	0.52	V _{DC}
	I _F = 10A	V _{F2}	—	0.64	
	I _F = 15A	V _{F3}	—	0.75	
Instantaneous Forward Voltage Drop (T _A = -55°C, 300 – 500usec Pulse)	I _F = 10A	V _{F4}	—	0.72	V _{DC}
Reverse Leakage Current (100% of rated V _R , 300μs pulse min.)	T _A = 25°C	I _{R1}	—	200	μA
	T _A = 100°C	I _{R2}	—	15	mA
Junction Capacitance (V _R =10V _{DC} , T _A =25°C, f=1MHz)		C _J	—	800	pF

NOTES:

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ Screening per MIL-PRF-19500.

3/ For Package Outlines Contact Factory.

4/ Maximum Electrical Rating Shown for Centertap Configurations both Legs Tied Together.
For Doubler Configurations: I_O = 15A, I_{FSM} = 250A.

5/ All Electrical Characteristics per Leg @25°C, Unless Otherwise Specified.

Available Part Numbers:

SSR4045CTJ	SSR4045CTJUB	SSR4045CTJDB
SSR4045CAJ	SSR4045CAJUB	SSR4045CAJDB
SSR4045DJ	SSR4045DJUB	SSR4045DJDB
SSR4045DRJ	SSR4045DRJUB	SSR4045DRJDB

PIN ASSIGNMENT

CONFIGURATION	Pin 1	Pin 2	Pin 3
Common Cathode (CT)	Anode	Cathode	Anode
Common Anode (CA)	Cathode	Anode	Cathode
Doubler (D)	Cathode	AC	Anode
Doubler Reverse (DR)	Anode	AC	Cathode