



SOLID STATE DEVICES, INC.

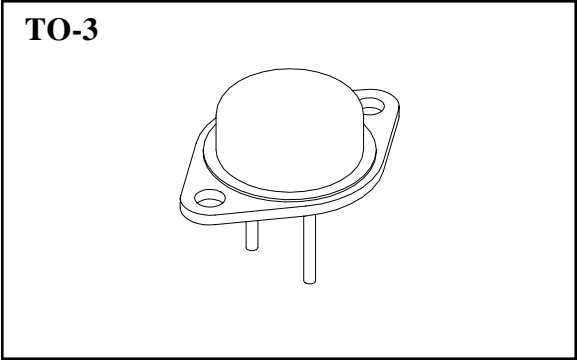
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Designer's Data Sheet

- FEATURES:**
- Low Forward Voltage Drop
 - Low Reverse Leakage
 - Hermetically Sealed Power Package
 - Guard Ring for Overvoltage Protection
 - Available in Isolated and non-Isolated Versions
 - Eutectic Die Attach
 - 175°C Operating Junction Temperature
 - TX, TXV and Space Level Screening Available

SSR8045/3

**80AMPS
45 VOLTS
SCHOTTKY
RECTIFIER**



Available in Following Configurations:
SSR8045/3 - Rectifier
SSR8045CT/3 - Common Cathode (See Data Sheet RS0057)
SSR8045CA/3 - Common Anode (See Data Sheet RS0057)
SSR8045CA/3 - Doubler (See Data Sheet RS0057)

Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	Volts
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$)	I_o	80	Amps
Peak Surge Current (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}	600	Amps
Operating and Storage Temperature	$T_{OP} \ \& \ T_{stg}$	-65 TO +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	0.7	$^\circ\text{C/W}$

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

DATA SHEET #: RS0051B

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Electrical Characteristics		SYMBOL	MINIMUM	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec Pulse)	$I_F = 20\text{A}$	V_{F1}	--	0.50	V_{DC}
	$I_F = 40\text{A}$	V_{F2}	--	0.58	
	$I_F = 80\text{A}$	V_{F3}	--	0.72	
Instantaneous Forward Voltage Drop ($I_F = 40\text{A}$, $T_A = -55^\circ\text{C}$, 300 μsec pulse)		V_{F4}	--	0.65	V_{DC}
Reverse Leakage Current (Rated V_R , 300 μs pulse min.)	$T_A = 25^\circ\text{C}$	I_{R1}	--	800	μA
	$T_C = 100^\circ\text{C}$	I_{R2}	--	60	mA
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	--	3200	pF

CASE OUTLINE: TO-3

Side view dimensions: $\phi.875$ MAX, $.135$ MAX, $.450$, $.250$, $.312$ MIN.

Top view dimensions: $R.525$ MAX, $R.188$ MAX, $.440$, $.420$, $2 \times \phi.161$, $2 \times \phi.063$, $\phi.058$, $.675$, $.655$, 1.197 , 1.177 .

PIN ASSIGNMENT				
CODE	FUNCTION	PIN 1	PIN 2	CASE
--	Rectifier	Anode	Anode	Cathode

TYPICAL OPERATING CURVES

($T_A = 25^\circ\text{C}$ unless otherwise specified)

