



## Solid State Devices, Inc.

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# SSR8045S1

### DESIGNER'S DATA SHEET

#### Part Number / Ordering Information <sup>1/</sup>

SSR8045

└─ Screening<sup>2/</sup>  
    ─ = Not Screened  
    TX = TX Level  
    TXV = TXV Level  
    S = S Level  
└─ Package:  
    S1 = SMD1

## 80 AMP SCHOTTKY RECTIFIER 45 Volts

#### Features:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overload Protection
- Also Available in TO-258 and TO-259 Versions
- 175°C Operating Temperature
- TX, TXV, and S Level Screening Available<sup>2/</sup>

MAXIMUM RATINGS	Symbol	Value	Unit
Peak Repetitive Reverse and DC Blocking Voltage	$V_{RRM}$ $V_{RSM}$ $V_R$	45	V
Average Rectified Forward Current <sup>3/</sup> Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$	$I_O$	80	A
Peak Surge Current <sup>3/</sup> 8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$	$I_{FSM}$	600	A
Operating & Storage Temperature	$T_{OP} \& T_{STG}$	-65 to +175	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	0.5	°C/W

#### Notes:

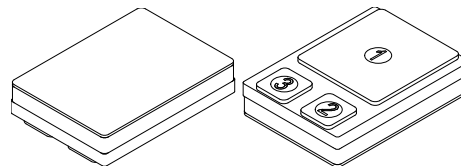
<sup>1/</sup> For ordering information, price, operating curves, and availability - Contact factory.

<sup>2/</sup> Screening based on MIL-PRF-19500. Screening flows available on request.

<sup>3/</sup> Maximum electrical rating shown for both anodes tied together.

<sup>4/</sup> All electrical characteristics per leg @ 25°C, unless otherwise specified.

SMD1 (S1)



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

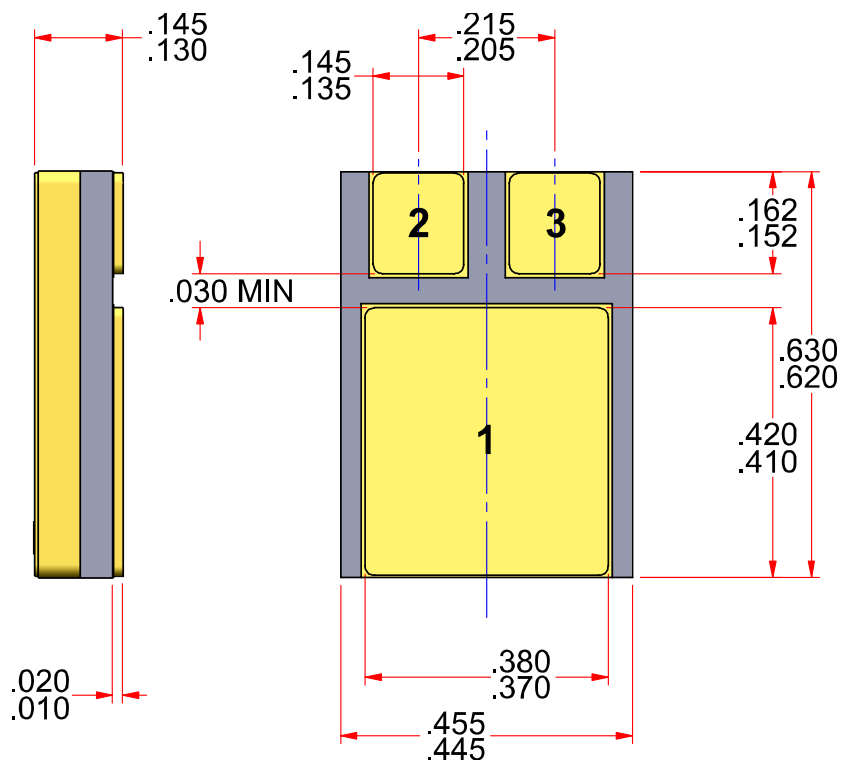
**DATA SHEET #: RS0047D**

**DOCX**

# SSR8045S1

ELECTRICAL CHARACTERISTICS <sup>3/4</sup>		Symbol	Min	Typ	Max	Unit
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = 25°C, pulse)	I <sub>F</sub> = 20 A	V <sub>F1</sub>	-	0.425	0.50	V <sub>DC</sub>
	I <sub>F</sub> = 40 A	V <sub>F2</sub>	-	0.470	0.55	
	I <sub>F</sub> = 80 A	V <sub>F3</sub>	-	0.540	0.65	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = -55°C, pulse)	I <sub>F</sub> = 40 A	V <sub>F4</sub>	-	0.55	0.65	V <sub>DC</sub>
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, pulse)		I <sub>R1</sub>	-	50	400	μA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, pulse)		I <sub>R2</sub>	-	15	30	mA
<b>Junction Capacitance</b> (V <sub>R</sub> = 10 V, f = 1 MHz, T <sub>A</sub> = 25°C)		C <sub>J</sub>	-	5000	5500	pF

## SMD1 Outline:



## PIN ASSIGNMENT:

Package	Pin 1	Pin 2	Pin 3
SMD1	Cathode	Anode	Anode