

# SOLID STATE DEVICES, INC.

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## Designer's Data Sheet

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

**SSR4045 CT M TX**

**Screening <sup>2/</sup>:** \_ = Not Screened  
 TX = TX Level  
 TXV = TXV Level  
 S = Space Level

**Lead Bend:** \_ = Straight  
 UB = Up Bend  
 DB = Down Bend

**Package:** M = TO-254  
 Z = TO-254Z

**Configuration:**  
 CT = Common Cathode  
 CA = Common Anode  
 D = Doubler

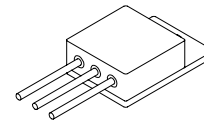
### NOTES:

- <sup>1/</sup> For Ordering Information, Price, and Availability Contact Factory.
- <sup>2/</sup> Screening per MIL-PRF-19500.
- <sup>3/</sup> Both Legs Tied Together. For Doubler Configuration, Value Shall Be Half of the Value Shown, Tested per Leg.
- <sup>4/</sup> Both Legs Tied Together. For Doubler Configuration, Tested Both Dies in Series.
- <sup>5/</sup> Per Leg

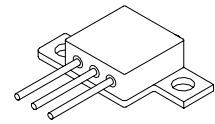
# SSR4045CTM SSR4045CTZ

## 40 AMP 45VOLTS POSITIVE CENTERTAP SCHOTTKY RECTIFIER

TO-254



TO-254Z



### FEATURES:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overvoltage Protection
- Isolated Hermetically Sealed Power Package
- Available in Glass or Ceramic Seal Packages
- Eutectic Die Attach
- 175°C Operating Temperature
- TX, TXV and Space Level Screening Available

Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	45	Volts
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, T <sub>C</sub> = 55°C) <sup>3/</sup>	I <sub>o</sub>	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T <sub>A</sub> = 25°C) <sup>3/</sup>	I <sub>FSM</sub>	600	Amps
Operating and Storage Temperature	T <sub>OP</sub> & T <sub>stg</sub>	-65 TO +175	°C
Maximum Thermal Resistance Junction to Case <sup>4/</sup> Junction to Case <sup>5/</sup>	R <sub>θJC</sub>	0.9 1.8	°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 # : RS0031C**

# SSR4045CTM SSR4045CTZ

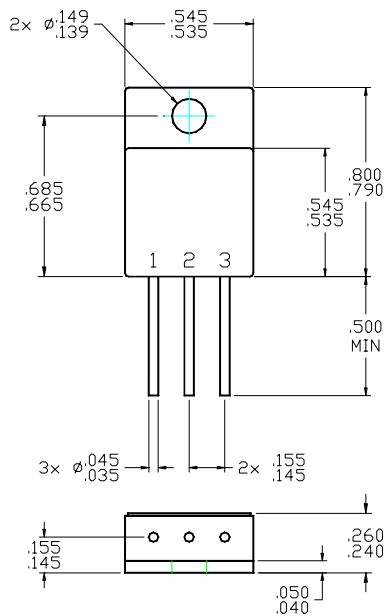


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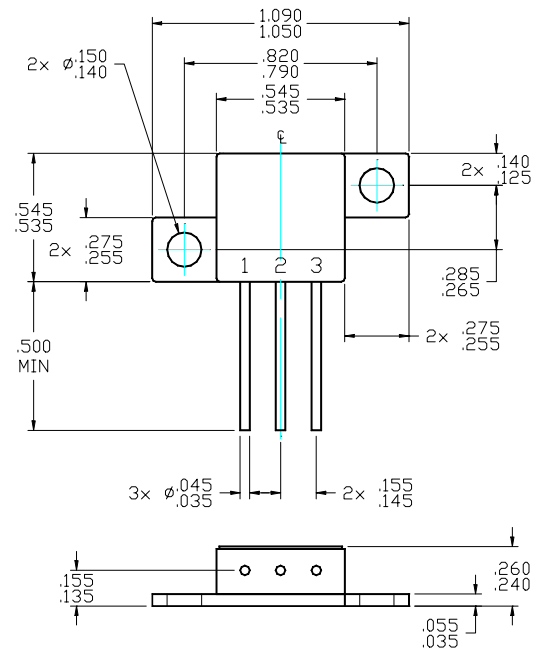
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Electrical Characteristics <sup>5/</sup>		SYMBOL	MIN	MAX	UNITS
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = 25°C, 300 - 500 μsec pulse)	I <sub>F</sub> = 5A	V <sub>F1</sub>	-	0.50	<b>Vdc</b>
	I <sub>F</sub> = 10A	V <sub>F2</sub>	-	0.55	
	I <sub>F</sub> = 20A	V <sub>F3</sub>	-	0.70	
<b>Instantaneous Forward Voltage Drop</b> (I <sub>F</sub> = 10A, T <sub>A</sub> = -55°C, 300 - 500μsec pulse)		V <sub>F4</sub>	-	0.62	<b>Vdc</b>
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300μs pulse minimum )		I <sub>R1</sub>	-	200	<b>μA</b>
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, 300μs pulse minimum )		I <sub>R2</sub>	-	15	<b>mA</b>
<b>Junction Capacitance</b> (V <sub>R</sub> = 10V, f = 1MHz, T <sub>A</sub> = 25°C)		C <sub>J</sub>	-	800	<b>pF</b>

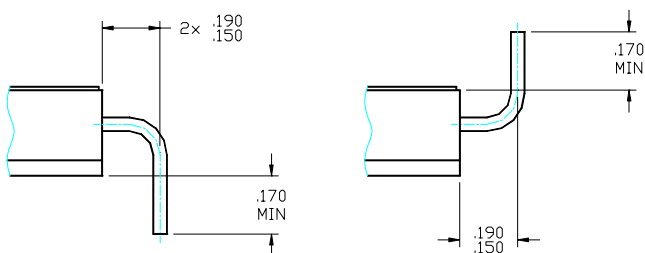
## CASE OUTLINE: TO-254 (Suffix M)



## CASE OUTLINE: TO-254Z (Suffix Z)



## OPTIONAL LEAD BEND CONFIGURATION



SUFFIX MD & ZD

SUFFIX MU & ZU

## 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