



## Solid State Devices, Inc.

14701 Firestone Blvd \* La Mirada, CA 90638  
Phone: (562) 404-4474 \* Fax: (562) 404-1773  
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### Designer's Data Sheet

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

SSR 02 45 SMS \_\_\_\_\_

#### L Screening <sup>2/</sup>

\_\_\_\_\_ = Not Screened

TX = TX Level

TXV = TXV Level

S = S-Level

#### Package

\_\_\_\_\_ = Axial Lead

SMS = Square Tab Surface Mount

#### Voltage

45 = 45 Volts

#### Current

02 = 2 Amps

# SSR0245

## 2 AMP 45 VOLTS SCHOTTKY RECTIFIER

#### FEATURES:

- Extremely Low Forward Voltage Drop
- PIV of 45 Volts
- Hermetically Sealed
- High Surge Capability
- TX, TXV, and Space Level Screening Available <sup>3/</sup>
- High Current, Low Leakage Replacement for 1N5819

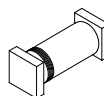
MAXIMUM RATINGS	Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	45	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_O$	2	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ )	$I_{FSM}$	40	Amps
Operating and Storage Temperature	$T_{OP}$ & $T_{stg}$	-65 to +125	$^\circ\text{C}$
Maximum Thermal Resistance	Junction to Lead, $L = 3/8"$ Junction to End Tab	$R_{\theta JL}$ $R_{\theta JE}$	70 40 $^\circ\text{C/W}$

#### NOTES:

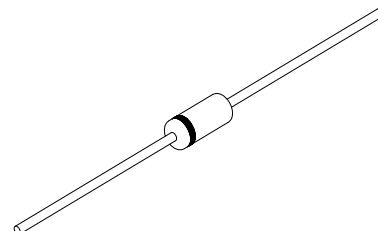
<sup>1/</sup> For ordering information, price, and availability, contact factory.

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

Surface Mount  
Square Tab (SMS)



Axial Lead Diode



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

DATA SHEET #: SH0059B

DOC



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# SSR0245

ELECTRICAL CHARACTERISTICS <sup>1/</sup>	Symbol	Max	Unit
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 100 \text{ mA}_{DC}$ , $T_A = 25^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F1}$	0.330	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1 \text{ A}_{DC}$ , $T_A = 25^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F2}$	0.470	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 2 \text{ A}_{DC}$ , $T_A = 25^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F3}$	0.620	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 3.1 \text{ A}_{DC}$ , $T_A = 25^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F4}$	0.720	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1 \text{ A}_{DC}$ , $T_A = 100^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F5}$	0.450	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 2 \text{ A}_{DC}$ , $T_A = 100^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F6}$	0.610	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1 \text{ A}_{DC}$ , $T_A = -55^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F7}$	0.600	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 2 \text{ A}_{DC}$ , $T_A = -55^\circ\text{C}$ , 300-500 $\mu\text{s}$ Pulse)	$V_{F8}$	0.650	Volts
<b>Reverse Leakage Current</b> ( $V_R = 45 \text{ V}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ minimum Pulse)	$I_{R1}$	50	$\mu\text{A}$
<b>Reverse Leakage Current</b> ( $V_R = 45 \text{ V}$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ minimum Pulse)	$I_{R2}$	3.0	mA
<b>Junction Capacitance</b> ( $V_R = 5 \text{ V}_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )	$C_J$	70	pF

AXIAL LEADED CASE OUTLINE:	DIMENSIONS		
	CODE	MIN.	MAX.
	A	.080"	.107"
	B	.160"	.205"
	C	1.00"	---
SMS CASE OUTLINE:	DIMENSIONS		
	CODE	MIN.	MAX.
	A	.125"	.135"
	B	.210"	.260"
	C	.022"	.028"
	D	.003"	---

**NOTES:** Dimensions are prior to solder dipping

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