Solid State Devices, Inc.
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SSR0245

2 AMP
45 VOLTS
SCHOTTKY RECTIFIER

Designer's Data Sheet

Part Number / Ordering Information [1/]

SSR 02 45 SMS ___

- **Screening** [2/]
  - ___ = 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

FEATURES:

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

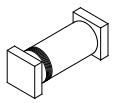
MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage		V_{RRM} V_{RWM} V_R	45	**Volts**
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, T_A = 25°C)		I_O	2	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_O, allow junction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

NOTES:

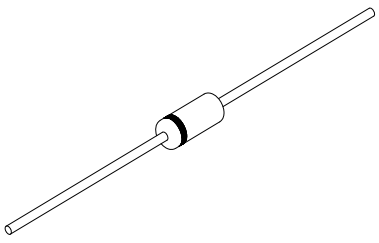
1/ For ordering information, price, and availability, contact factory.

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

Surface Mount Square Tab (SMS)



Axial Lead Diode



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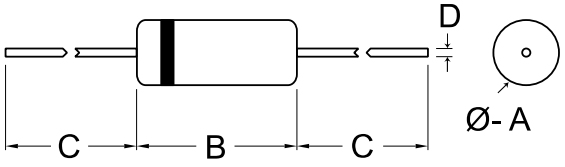
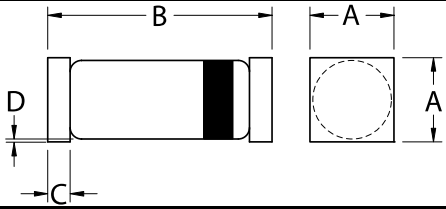
ELECTRICAL CHARACTERISTICS [1/]	Symbol	Max	Unit
Instantaneous Forward Voltage Drop (I_F = 100 mA_{DC}, T_A = 25°C, 300-500 µs Pulse)	V_{F1}	0.330	**Volts**
Instantaneous Forward Voltage Drop (I_F = 1 A_{DC}, T_A = 25°C, 300-500 µs Pulse)	V_{F2}	0.470	**Volts**
Instantaneous Forward Voltage Drop (I_F = 2 A_{DC}, T_A = 25°C, 300-500 µs Pulse)	V_{F3}	0.620	**Volts**
Instantaneous Forward Voltage Drop (I_F = 3.1 A_{DC}, T_A = 25°C, 300-500 µs Pulse)	V_{F4}	0.720	**Volts**
Instantaneous Forward Voltage Drop (I_F = 1 A_{DC}, T_A = 100°C, 300-500 µs Pulse)	V_{F5}	0.450	**Volts**
Instantaneous Forward Voltage Drop (I_F = 2 A_{DC}, T_A = 100°C, 300-500 µs Pulse)	V_{F6}	0.610	**Volts**
Instantaneous Forward Voltage Drop (I_F = 1 A_{DC}, T_A = -55°C, 300-500 µs Pulse)	V_{F7}	0.600	**Volts**
Instantaneous Forward Voltage Drop (I_F = 2 A_{DC}, T_A = -55°C, 300-500 µs Pulse)	V_{F8}	0.650	**Volts**
Reverse Leakage Current (V_R = 45 V, T_A = 25°C, 300 µs minimum Pulse)	I_{R1}	50	**µA**
Reverse Leakage Current (V_R = 45 V, T_A = 100°C, 300 µs minimum Pulse)	I_{R2}	3.0	**mA**
Junction Capacitance (V_R = 5 V_{DC}, T_A = 25°C, f = 1 MHz)	C_J	70	**pF**

AXIAL LEADED CASE OUTLINE:



DIMENSIONS		
CODE	MIN.	MAX.
A	.080”	.107”
B	.160”	.205”
C	1.00”	---
D	.028”	.034”

SMS CASE OUTLINE:



DIMENSIONS		
CODE	MIN.	MAX.
A	.125”	.135”
B	.155”	.185”
C	.022”	.028”
D	.003”	---

NOTES: Dimensions are prior to solder dipping