



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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SPD5817 thru SPD5819
SPD5817SMS thru SPD5819SMS
SPD5817VSMS thru SPD5819VSMS

Designer's Data Sheet

Part Number / Ordering Information ^{2/}

SPD 5817 _____

L Screening ^{3/}

TX = TX Level
 TXV = TXV Level,
 S = S-Level
 ____ = Not Screened

Package

SMS = Square Tab Surface Mount
 ____ = Axial Lead

Extra Inspection ^{1/}

V = MIL-STD-750, METHOD 2076
 ____ = None

Voltage / Family 5817 = 20V
 5818 = 30V
 5819 = 40V

1 AMP

20-40 VOLTS
SCHOTTKY RECTIFIER

FEATURES:

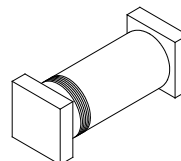
- Extremely Low Forward Voltage Drop
- High Surge Capability
- Hermetically Sealed
- Low Profile Surface Mount Package Available
- TX, TXV, and Space Level Screening Available ^{3/}
- Extra Inspection per MIL-STD-750, Method 2076 Available

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SPD5817, SMS ^{1/}	V_{RRM}	20	Volts
	SPD5818, SMS ^{1/}	V_{RWM}	30	
	SPD5819, SMS ^{1/}	V_R	40	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A=25^{\circ}\text{C}$)		I_O	1	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}	25	Amps
Operating and Storage Temperature		$T_{OP} \ \& \ T_{stg}$	-55 to +125	$^{\circ}\text{C}$
Maximum Thermal Resistance	Junction to Lead, $L = 3/8"$	$R_{\theta JL}$	80	$^{\circ}\text{C/W}$
	Junction to End Tab	$R_{\theta JE}$	40	

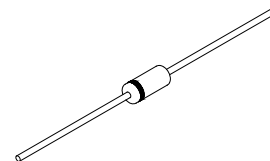
NOTES:

- ^{1/} Part number may have letter 'V' preceding 'SMS'.
^{2/} For ordering information, price, and availability, contact factory.
^{3/} 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 #: RS0293L

DOC



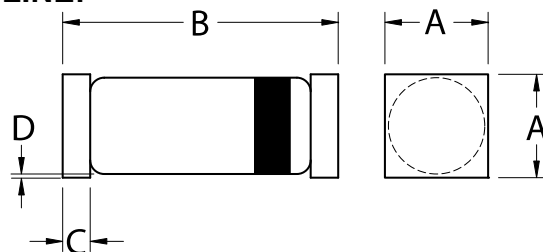
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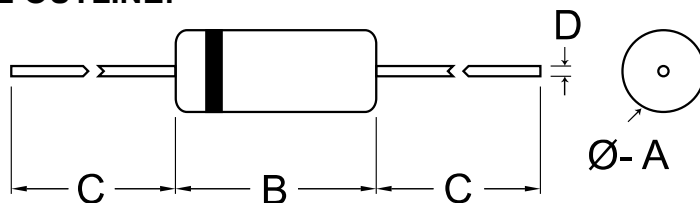
ELECTRICAL CHARACTERISTICS ^{1/}		Symbol	Max	Unit
Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = 25^\circ C$, 300-500 μs Pulse)	SPD5817, SMS	V_{F1}	0.55	Volts
	SPD5818, SMS	V_{F2}	0.65	
	SPD5819, SMS	V_{F3}	0.70	
Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = -55^\circ C$, 300-500 μs Pulse)	SPD5817, SMS	V_{F4}	0.57	Volts
	SPD5818, SMS	V_{F5}	0.67	
	SPD5819, SMS	V_{F6}	0.72	
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ C$, 300 μs minimum Pulse)		I_{R1}	100	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ C$, 300 μs minimum Pulse)		I_{R2}	10	mA
Junction Capacitance ($V_R = 5 V_{DC}$, $T_A = 25^\circ C$, $f = 1 MHz$)		C_J	110	pF

SMS CASE OUTLINE:



DIMENSIONS ^{2/}		
CODE	MIN.	MAX.
A	.125"	.135"
B	.180"	.235"
C	.022"	.028"
D	.005"	---

LEADED CASE OUTLINE:



DIMENSIONS ^{2/}		
CODE	MIN.	MAX.
A	.080"	.107"
B	.155"	.185"
C	1.00"	---
D	.028"	.034"

NOTES: ^{1/} Part number may have letter 'V' preceding 'SMS'.

^{2/} Dimensions are prior to solder dipping