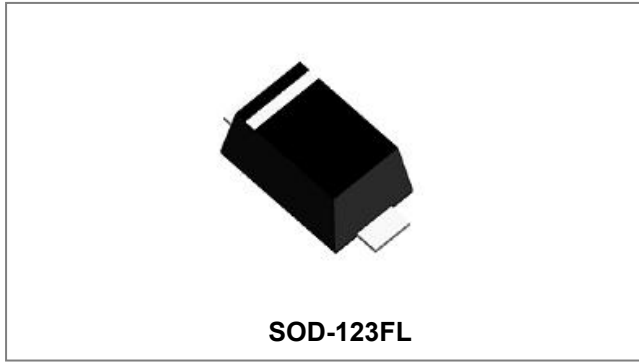


## 1N5817W THRU 1N5819W SCHOTTKY BARRIER DIODE



### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High temperature soldering guaranteed: 260/10° C seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band dented cathode end
- Mounting Position: Any

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Parameter Marking code	Symbol	1N5817W 12A	1N5818W 13A	1N5819W 14A	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum DC blocking voltage	V <sub>R</sub>				
Maximum RMS voltage	V <sub>R(RMS)</sub>	14	21	28	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>L</sub> =90°C	I <sub>F(AV)</sub>	1.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40.0			A
Forward Voltage per element @I <sub>F</sub> = 1A, T <sub>A</sub> = 25°C	V <sub>F</sub>	0.50			V
Maximum DC reverse current T <sub>A</sub> = 25°C At rated DC blocking voltage T <sub>A</sub> = 100°C	I <sub>R</sub>	0.1 10.0			mA
Typical junction capacitance (Note 1)	C <sub>J</sub>	110			pF
Typical thermal resistance (Note 2)	R <sub>θJA</sub>	85			°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150			°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
2. Mounted on 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**Ratings and Characteristics Curves**

FIG. 1- FORWARD CURRENT DERATING CURVE

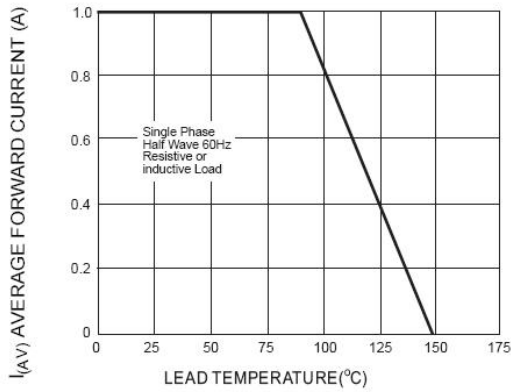


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

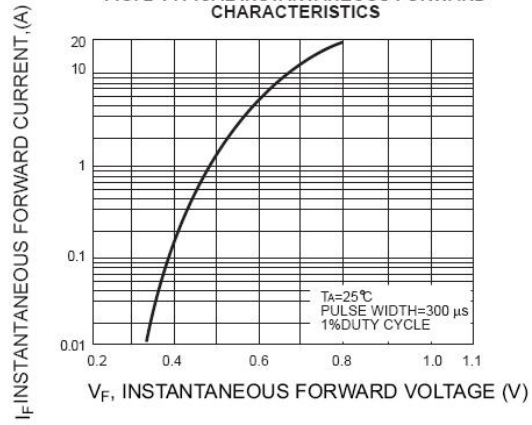


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

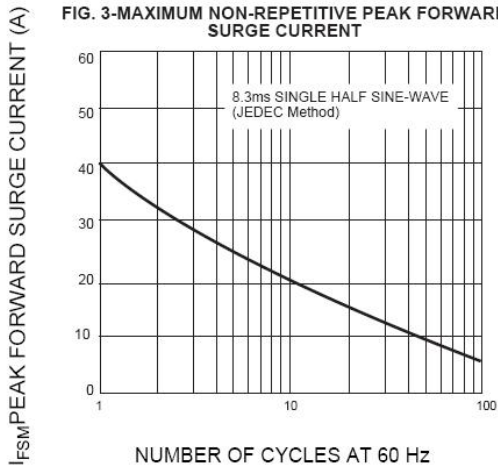


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

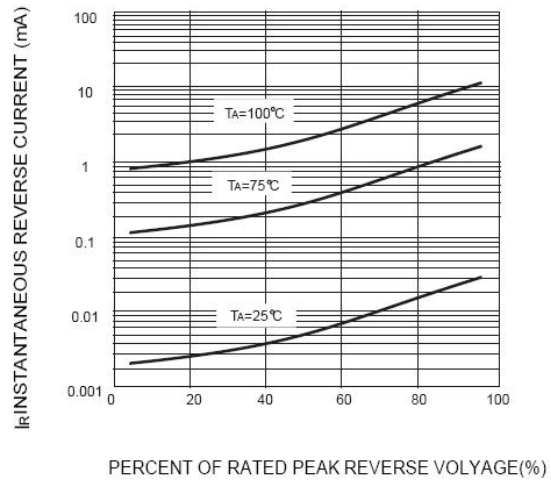
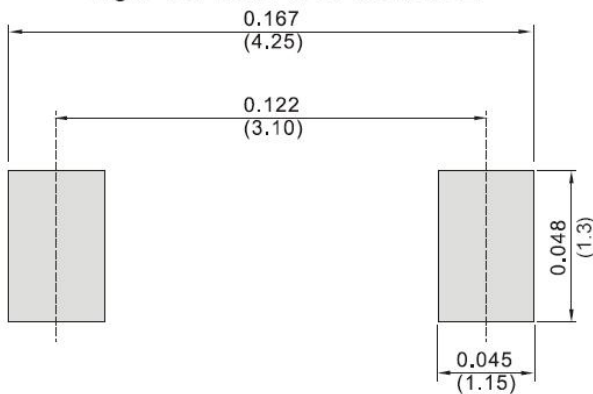
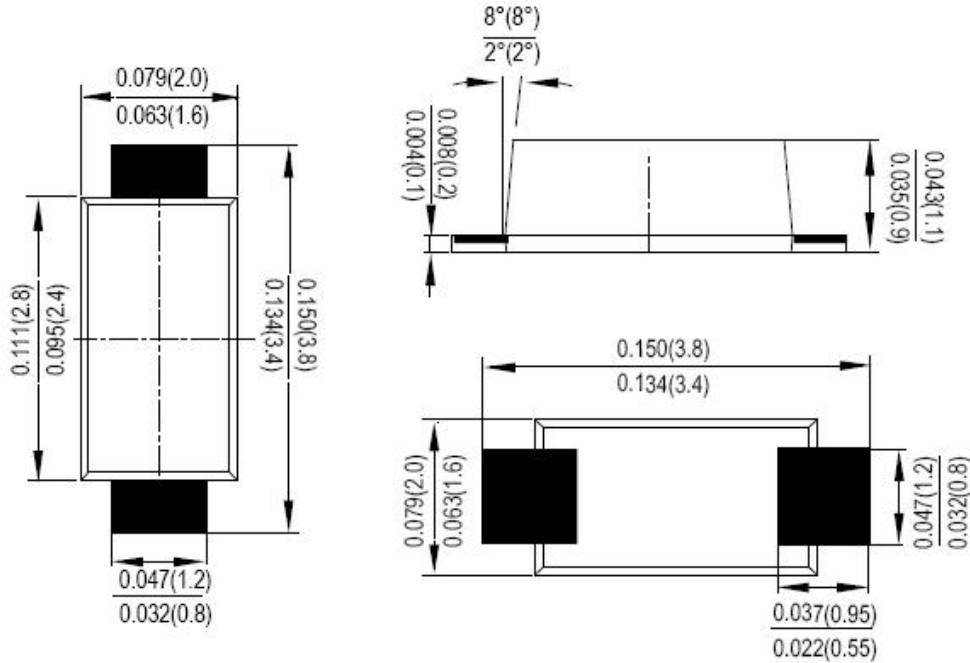


Fig.5 TYPICAL CAPACITANCE



**Mechanical Dimensions SOD-123FL(Inches/Millimeters)**

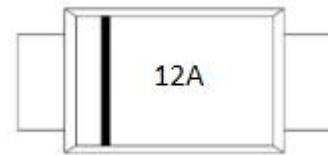


**Ordering Information**

Device	Package	Shipping
1N5817W THRU 1N5819W	SOD-123FL (Pb-Free)	3000pcs / reel

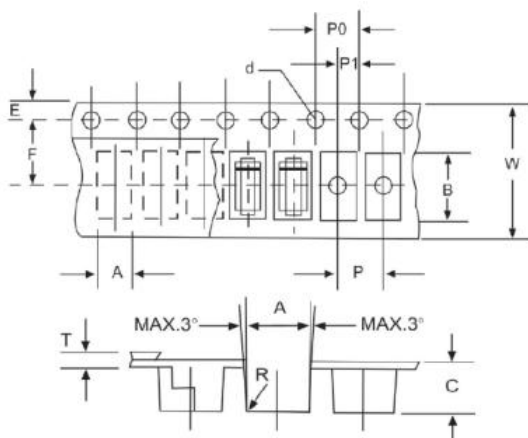
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



12A = Marking Code

**Carrier Tape Specification SOD-123FL**



SYMBOL	Millimeters	
	Min.	Max.
A	1.95	2.15
B	3.85	4.05
C	1.35	1.55
d	1.50	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30



1N5817W  
THRU  
1N5819W

**Technical Data**  
**Data Sheet N1756, Rev. A**



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