

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIERS**

REVERSE VOLTAGE - **20 to 40** Volts  
FORWARD CURRENT - **1.0** Ampere

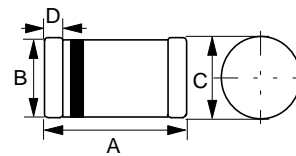
**FEATURES**

- For surface mounted applications
- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Very Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

- Case : MELF, Molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.005 ounces, 0.118 grams
- Mounting position: Any

**SM-1**



SM-1		
DIM.	MIN.	MAX.
A	4.80	5.20
B	2.20	2.50
C	2.30	2.70
D	0.40	0.60
All Dimensions in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SM5817	SM5818	SM5819	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	V
Maximum RMS Voltage	VRMS	14	21	28	V
Maximum DC Blocking Voltage	VDC	20	30	40	V
Maximum Average Forward Rectified Current @TA =90°C	I(AV)	1.0			A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	IFSM	25			A
Maximum forward Voltage @ 1.0A DC @ 3.0A DC	VF	0.450 0.750	0.550 0.875	0.600 0.900	V
Maximum DC Reverse Current @TJ =25°C at Rated DC Blocking Voltage @TJ =100°C	IR	1.0 10			mA mA
Typical Junction capacitance (Note 1)	CJ	110			pF
Typical Thermal Resistance (Note 2)	RθJA	80			°C/W
Operating Temperature Range	TJ	-55 to +125			°C
Storage Temperature Range	TSTG	-55 to +150			°C

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal Resistance Junction to Ambient.

REV. 1, 24-May-2000

