



**SM5817  
THRU  
SM1010**

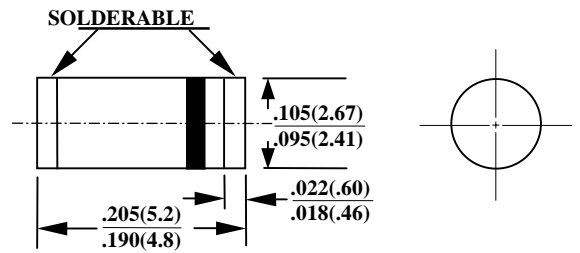
**1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS**

**FEATURES**

- EXTREMELY LOW VF
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- UL 94V-0 FLAME RETARDANT EPOXY MOLDING COMPOUND

**MECHANICAL DATA**

- CASE : TRANSFER MOLDED
- TERMINALS : SOLDERABLE PER MIL-STD-750, METHOD 2026
- POLARITY : CATHODE INDICATED BY COLOR BAND
- WEIGHT : 0.135 GRAMS



CASE : MELF  
DIMENSIONS IN INCHES AND (MILLIMETERS)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**  
RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED  
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.  
FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	SM5817	SM5818	SM5819	SM105	SM106	SM107	SM108	SM109	SM1010	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V <sub>RRM</sub>	20	30	40	50	60	70	80	90	100	V
MAXIMUM RMS VOLTAGE	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	V
MAXIMUM DC BLOCKING VOLTAGE	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT AT T <sub>L</sub> =90°C	I <sub>O</sub>	1.0									A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I <sub>FSM</sub>	25									A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C <sub>J</sub>	110	70							PF	
STORAGE TEMPERATURE RANGE	T <sub>STG</sub>	- 55 TO + 150									°C
OPERATING TEMPERATURE RANGE	T <sub>OP</sub>	- 55 TO + 125									°C

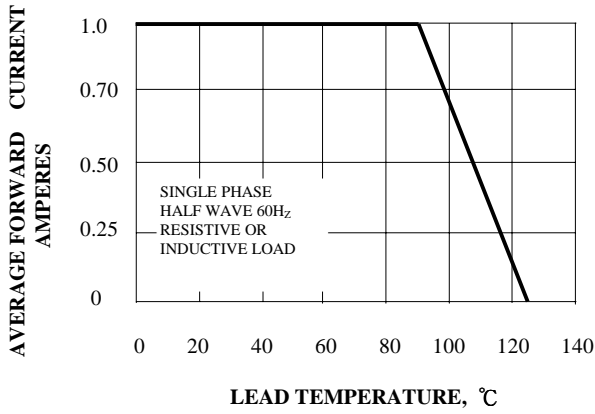
**ELECTRICAL CHARACTERISTICS (A<sub>T</sub> T<sub>A</sub> =25°C UNLESS OTHERWISE NOTED)**

CHARACTERISTICS	SYMBOL	SM5817	SM5818	SM5819	SM105	SM106	SM107	SM108	SM109	SM1010	UNITS
MAXIMUM FORWARD VOLTAGE AT I <sub>O</sub> DC	V <sub>F</sub>	0.45	0.55	0.60	0.70	0.79				V	
MAXIMUM REVERSE CURRENT AT 25°C	I <sub>R</sub>	1.0					mA				

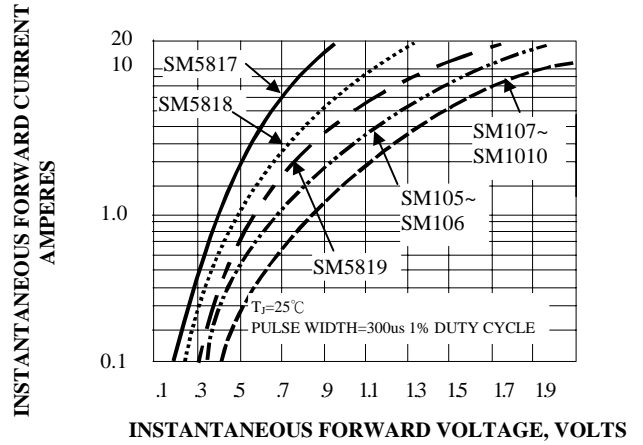
NOTE : 1. MEASURED AT 1.0 MHz AND APPLIED REVERSE VOLTAGE OF 4.0V D.C.

# RATINGS AND CHARACTERISTIC CURVE SM5817 THRU SM1010

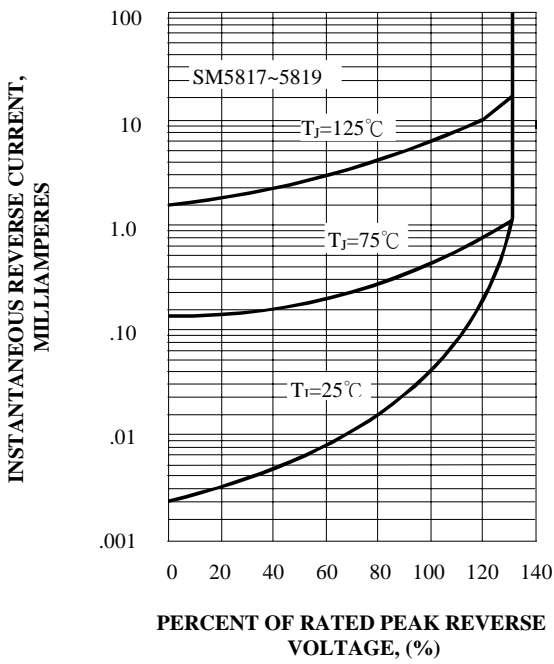
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



**FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 3A - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 3B - TYPICAL REVERSE CHARACTERISTICS**

