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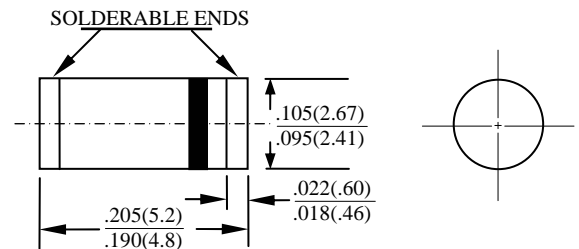
## 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS SM5817-LFR THRU SM1010-LFR

### FEATURES

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

### MECHANICAL DATA

- CASE: TRANSFER MOLDED, MELF, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDERABLE PER MIL-STD-750, METHOD 2026
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.135 GRAMS



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<br>-LFR | SM5818<br>-LFR | SM5819<br>-LFR | SM105<br>-LFR | SM106<br>-LFR | SM107<br>-LFR | SM108<br>-LFR | SM109<br>-LFR | SM1010<br>-LFR | UNITS |
|---|-----------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|-------|
| MAXIMUM RECURRENT PEAK REVERSE VOLTAGE  | $V_{RRM}$ | 20             | 30             | 40             | 50            | 60            | 70            | 80            | 90            | 100            | V     |
| MAXIMUM RMS VOLTAGE   | $V_{RMS}$ | 14             | 21             | 28             | 35            | 42            | 49            | 56            | 63            | 70             | V     |
| MAXIMUM DC BLOCKING VOLTAGE   | $V_{DC}$  | 20             | 30             | 40             | 50            | 60            | 70            | 80            | 90            | 100            | V     |
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT<br>AT $T_J=90^{\circ}C$                     | $I_O$     | 1.0            |                |                |               |               |               |               |               |                | A     |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF<br>SINE-WAVE SUPERIMPOSED ON RATED LOAD | $I_{FSM}$ | 25             |                |                |               |               |               |               |               |                | A     |
| TYPICAL JUNCTION CAPACITANCE (NOTE 1)   | $C_J$     | 110            | 70             |                |               |               |               |               |               |                | PF    |
| STORAGE TEMPERATURE RANGE   | $T_{STG}$ | - 55 TO + 150  |                |                |               |               |               |               |               |                | °C    |
| OPERATING TEMPERATURE RANGE   | $T_{OP}$  | - 55 TO + 125  |                |                |               |               |               |               |               |                | °C    |

### ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^{\circ}C$ UNLESS OTHERWISE NOTED)

| CHARACTERISTICS                     | SYMBOL | SM5817<br>-LFR | SM5818<br>-LFR | SM5819<br>-LFR | SM105<br>-LFR | SM106<br>-LFR | SM107<br>-LFR | SM108<br>-LFR | SM109<br>-LFR | SM1010<br>-LFR | UNITS |
|-------------------------------------|--------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|-------|
| MAXIMUM FORWARD VOLTAGE AT $I_O$ DC | $V_F$  | 0.55           |                |                | 0.70          |               | 0.79          |               |               |                | V     |
| MAXIMUM REVERSE CURRENT AT 25°C     | $I_R$  | 1.0            |                |                |               |               |               |               |               |                | mA    |

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

# RATINGS AND CHARACTERISTIC CURVE SM5817-LFR THRU SM1010-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

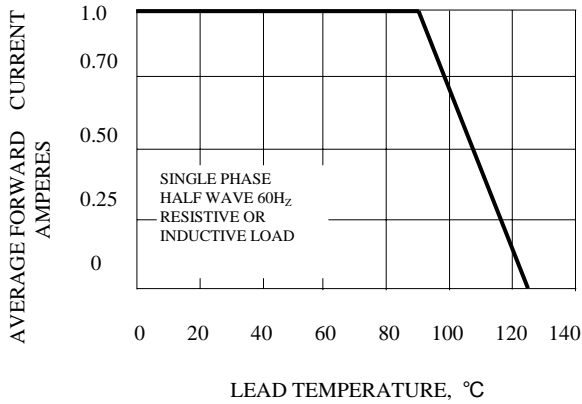


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

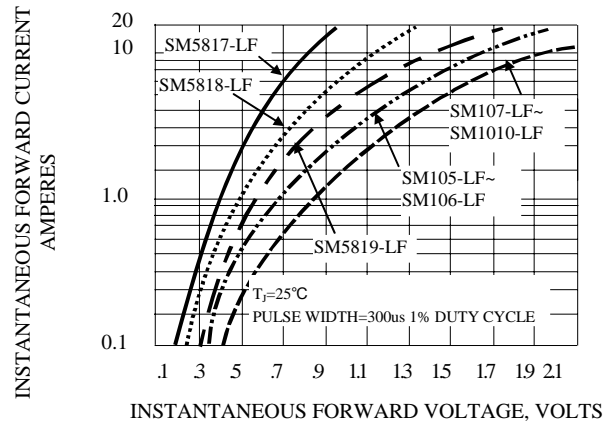


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

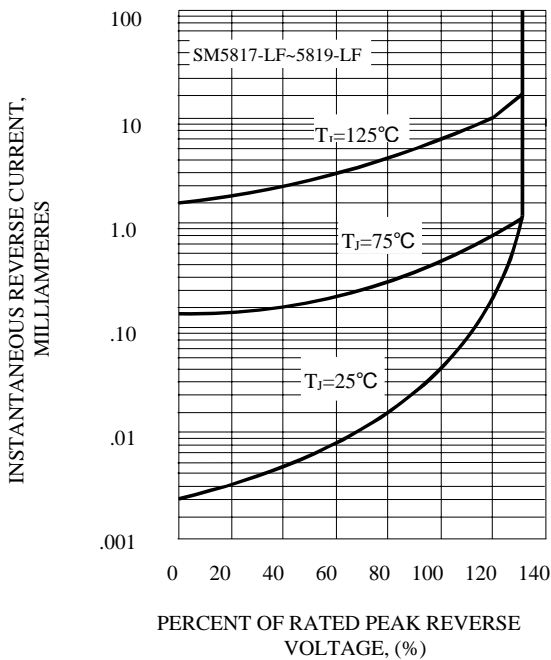


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

