



# Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

E-mail: [frontiersales@frontierusa.com](mailto:frontiersales@frontierusa.com)

Web: <http://www.frontierusa.com>

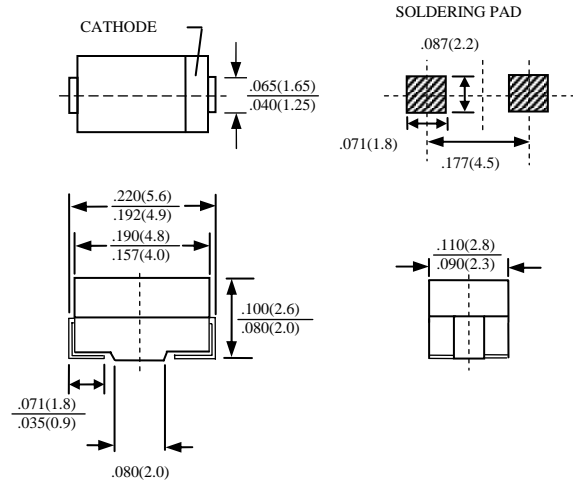
## 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS SS12-LFR THRU SS110-LFR

### 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, DO-214AC SMA, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDERABLE PER MIL-STD-750, METHOD 2026
- POLARITY CATHODE INDICATED BY COLOR BAND
- WEIGHT 0.064 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    | SS12-LF<br>R  | SS13-LF<br>R | SS14-LF<br>R | SS15-LF<br>R | SS16-LF<br>R | SS17-LF<br>R | SS18-LF<br>R | SS19-LF<br>R | SS110-LF<br>R | 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)   | $C_J$     | 70            |              |              |              |              |              |              |              |               | PF    |
| STORAGE TEMPERATURE RANGE   | $T_{STG}$ | - 55 TO + 150 |              |              |              |              |              |              |              |               | °C    |
| OPERATING TEMPERATURE RANGE   | $T_{OP}$  | - 55 TO + 125 |              |              |              |              |              |              |              |               | °C    |

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

| CHARACTERISTICS                     | SYMBOL | SS12-LF<br>R | SS13-LF<br>R | SS14-LF<br>R | SS15-LF<br>R | SS16-LF<br>R | SS17-LF<br>R | SS18-LF<br>R | SS19-LF<br>R | SS110-LF<br>R | UNITS |
|-------------------------------------|--------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|-------|
| MAXIMUM FORWARD VOLTAGE AT $I_O$ DC | $V_F$  | 0.50         |              |              | 0.70         |              |              | 0.85         |              |               | V     |
| MAXIMUM REVERSE CURRENT AT 25°C     | $I_R$  | 0.5          |              |              |              |              |              |              |              |               | mA    |

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

# RATINGS AND CHARACTERISTIC CURVE SS12-LFR THRU SS110-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

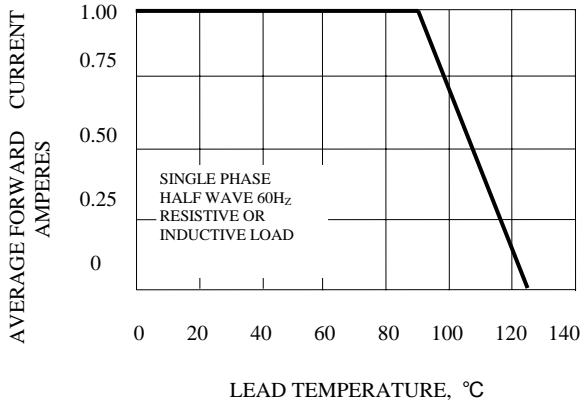


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

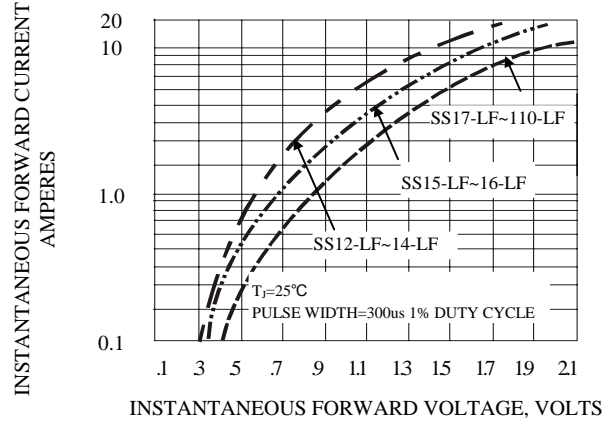


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

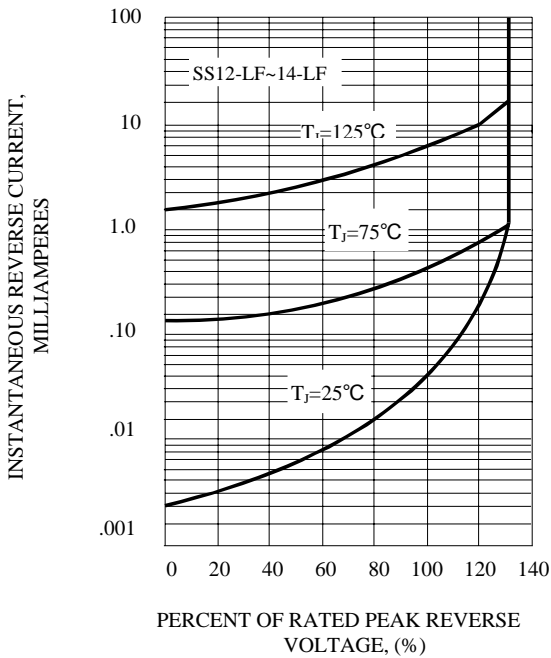


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

