

| SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER   |                   | Reverse Voltage - 20 to 200 Volts<br>Forward Current - 1.0 Ampere   |       |       |             |        |        |        |       |
|--|-------------------|---|-------|-------|-------------|--------|--------|--------|-------|
| <p><b>SOD-123FL</b></p> <p><i>Dimensions in inches and (millimeters)</i></p>   |                   | <p><b>Features</b></p> <ul style="list-style-type: none"> <li>➤ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0</li> <li>➤ For surface mounted applications</li> <li>➤ Built-in strain relief, ideal for automated placement</li> <li>➤ Low reverse leakage</li> <li>➤ High forward surge current capability</li> <li>➤ High temperature soldering guaranteed<br/>250°C/10 seconds at terminals</li> </ul> <p><b>Mechanical Data</b></p> <p><b>Case :</b> Molded plastic body</p> <p><b>Terminals :</b> Solder plated, solderable per MIL-STD-750, Method 2026</p> <p><b>Polarity :</b> Polarity symbol marking on body</p> <p><b>Mounting Position :</b> Any</p> <p><b>Weight :</b> 0.0007 ounce, 0.02 grams</p> |       |       |             |        |        |        |       |
| <p><b>Maximum Ratings And Electrical Characteristics</b></p> <p>Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.</p> |                   |   |       |       |             |        |        |        |       |
| Parameter  | SYMBOLS           | DS12W   | DS14W | DS16W | DS18W       | DS110W | DS115W | DS120W | UNITS |
| Maximum repetitive peak reverse voltage  | V <sub>RRM</sub>  | 20  | 40    | 60    | 80          | 100    | 150    | 200    | V     |
| Maximum RMS voltage  | V <sub>RMS</sub>  | 14  | 28    | 42    | 56          | 70     | 105    | 140    | V     |
| Maximum DC blocking voltage  | V <sub>DC</sub>   | 20  | 40    | 60    | 80          | 100    | 150    | 200    | V     |
| Maximum average forward rectified current at T <sub>L</sub> =100°C   | I <sub>(AV)</sub> | 1.0   |       |       |             |        |        |        | A     |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load   | I <sub>FSM</sub>  | 30.0  |       |       |             |        |        |        | A     |
| Maximum instantaneous forward voltage at 1.0A  | V <sub>F</sub>    | 0.55  | 0.70  | 0.85  | 0.95        |        |        |        | V     |
| Maximum DC reverse current at rated DC blocking voltage<br>T <sub>A</sub> =25°C<br>T <sub>A</sub> =125°C   | I <sub>R</sub>    | 0.5<br>50   |       |       | 0.05<br>10  |        |        | mA     |       |
| Typical thermal resistance   | R <sub>qJA</sub>  | 85.0  |       |       |             |        |        |        | °C/W  |
| Operating junction temperature range   | T <sub>J</sub>    | -55 to +125   |       |       | -55 to +150 |        |        |        | °C    |
| Storage temperature range  | T <sub>STG</sub>  | -55 to +150   |       |       |             |        |        |        | °C    |

**Ratings And Characteristic Curves**

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

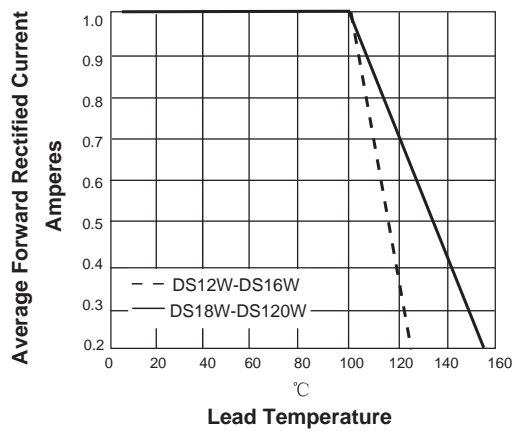


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

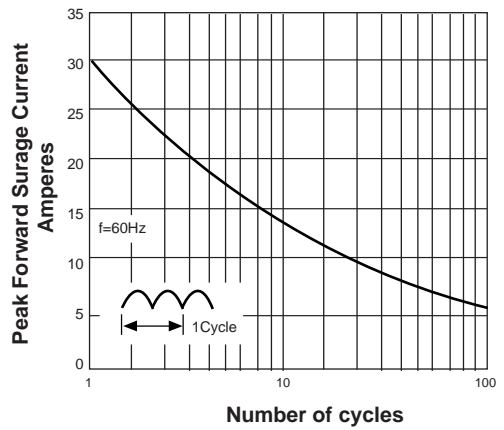


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

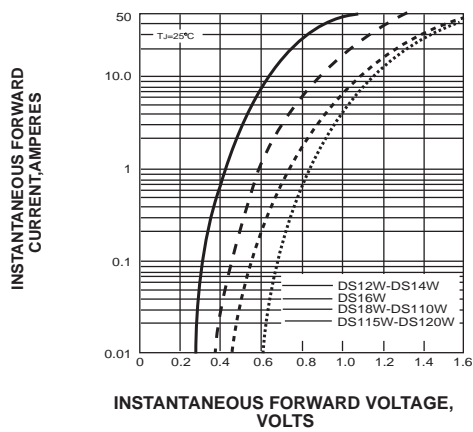


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

