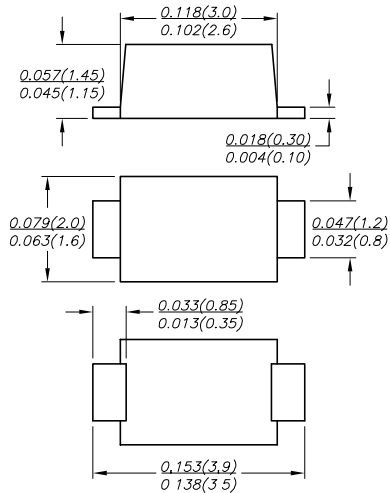


# DSS215 THRU DSS220

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 150 to 200 Volts Forward Current - 2.0 Ampere

### SOD-123FL



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** SOD-123FL molded plastic body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.0007 ounce, 0.02 grams

### 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 current derate by 20%.

|   | SYMBOLS         | DSS215<br>D215 | DSS220<br>D220 | UNITS |
|---|-----------------|----------------|----------------|-------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 150            | 200            | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 105            | 140            | V     |
| Maximum DC blocking voltage   | $V_{DC}$        | 150            | 200            | V     |
| Maximum average forward rectified current   | $I_{(AV)}$      | 2.0            |                | A     |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load                   | $I_{FSM}$       | 40.0           |                | A     |
| Maximum instantaneous forward voltage at 2.0A   | $V_F$           | 0.95           |                | V     |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=100^\circ\text{C}$ | $I_R$           | 0.1            | 2.0            | mA    |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 80             |                | pF    |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 95             |                | °C/W  |
| Operating junction temperature range  | $T_J$           | -55 to +150    |                | °C    |
| Storage temperature range   | $T_{STG}$       | -55 to +150    |                | °C    |

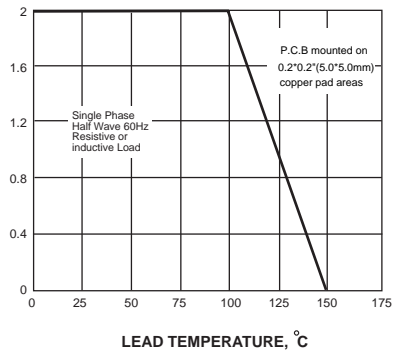
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. PCB mounted on 0.2\*0.2" (5.0\*5.0mm) copper pad area.

# RATINGS AND CHARACTERISTIC CURVES DSS215 THRU DSS220

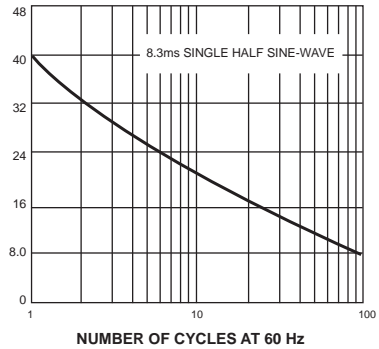
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



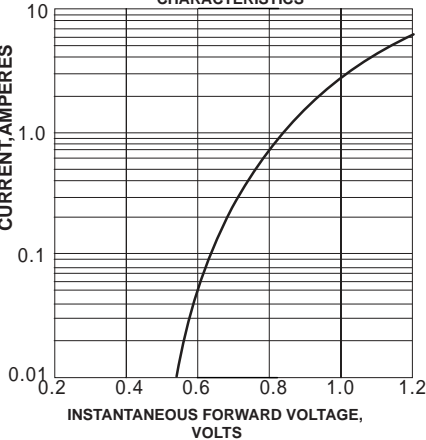
PEAK FORWARD SURGE CURRENT, AMPERES

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



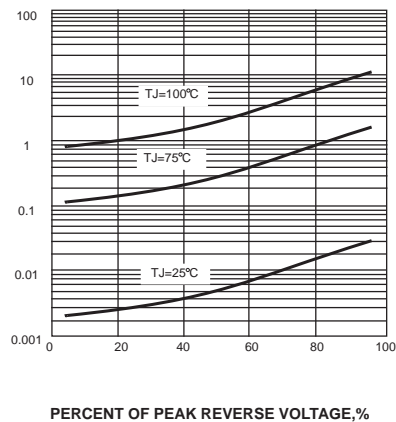
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4- TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5- TYPICAL JUNCTION CAPACITANCE

