

# DSS12 THRU DSS110

## 1.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* Low forward voltage drop

### MECHANICAL DATA

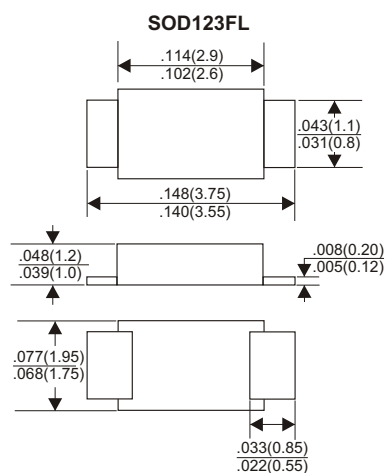
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Metallurgically bonded construction
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any

### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

1.0 Ampere



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| TYPE NUMBER                                                                                        | DSS12      | DSS13 | DSS14 | DSS15 | DSS16      | DSS18 | DSS19 | DSS110 | UNITS |
|----------------------------------------------------------------------------------------------------|------------|-------|-------|-------|------------|-------|-------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                             | 20         | 30    | 40    | 50    | 60         | 80    | 90    | 100    | V     |
| Maximum RMS Voltage                                                                                | 14         | 21    | 28    | 35    | 42         | 56    | 63    | 70     | V     |
| Maximum DC Blocking Voltage                                                                        | 20         | 30    | 40    | 50    | 60         | 80    | 90    | 100    | V     |
| Maximum Average Forward Rectified Current                                                          |            |       |       |       |            |       |       |        |       |
| See Fig. 1                                                                                         | 1.0        |       |       |       |            |       |       |        | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 30         |       |       |       |            |       |       |        | A     |
| Maximum Instantaneous Forward Voltage at 1.0A                                                      | 0.55       |       | 0.70  |       | 0.85       |       | V     |        |       |
| Maximum DC Reverse Current Ta=25℃                                                                  | 0.2        |       |       |       |            |       |       |        | mA    |
| at Rated DC Blocking Voltage Ta=100℃                                                               | 10         |       |       |       |            |       |       |        | mA    |
| Typical Junction Capacitance (Note1)                                                               | 110        |       |       |       |            |       |       |        | pF    |
| Typical Thermal Resistance R JA (Note 2)                                                           | 80         |       |       |       |            |       |       |        | ℃/W   |
| Operating Temperature Range Tj                                                                     | -65 — +125 |       |       |       | -65 — +150 |       |       |        | ℃     |
| Storage Temperature Range Tstg                                                                     | -65 — +150 |       |       |       |            |       |       |        | ℃     |

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

## RATING AND CHARACTERISTIC CURVES (DSS12 THRU DSS110)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

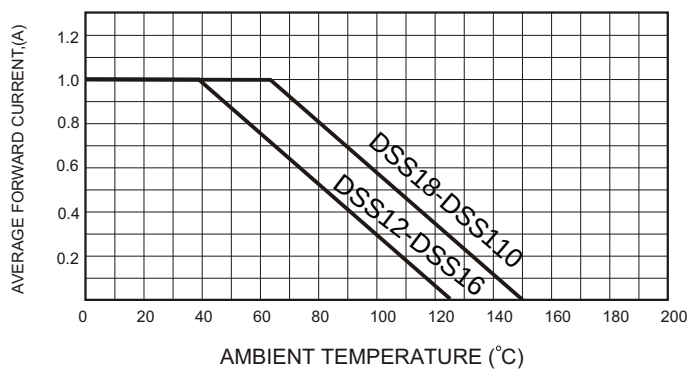


FIG.2-TYPICAL FORWARD CHARACTERISTICS

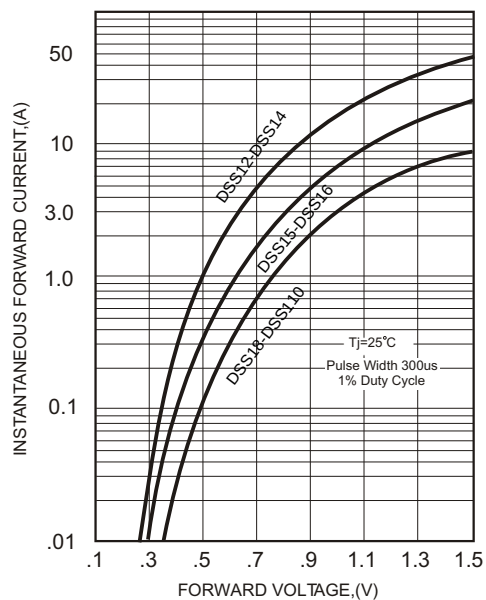


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

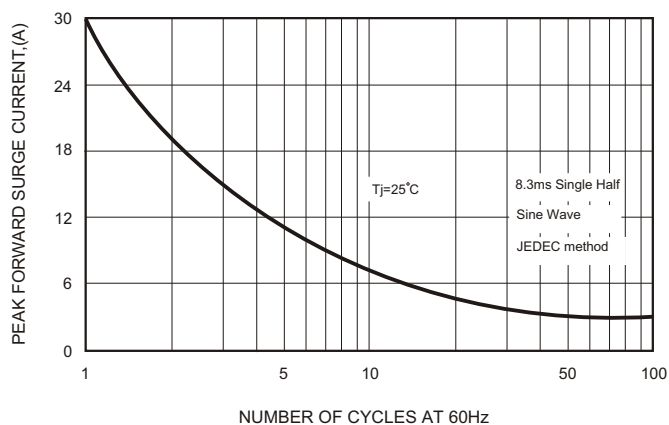


FIG.4-TYPICAL JUNCTION CAPACITANCE

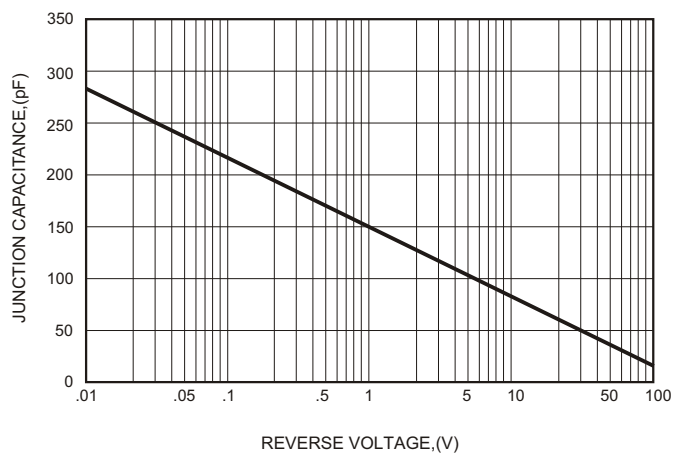


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

