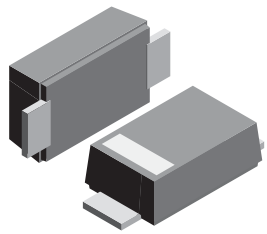
# DSK12 - DSK120

## SURFACE MOUNT SCHOTTKY BARRIER DIODES

**VOLTAGE RANGE: 20 - 200V**
**CURRENT: 1.0 A**



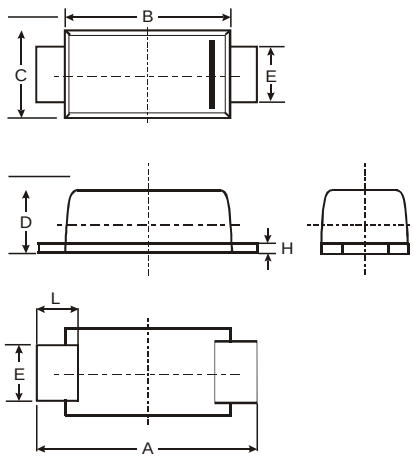
## Features

- 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 plastic body over passivated junction
- 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

RoHS COMPLIANT




| SOD-123FL | | | |
|---|---|---|---|
| Dim | Min | Max | Typ |
| A | 3.50 | 3.80 | 3.65 |
| B | 2.60 | 2.90 | 2.75 |
| C | 1.70 | 1.90 | 1.80 |
| D | 0.09 | 1.10 | 1.00 |
| E | 0.08 | 1.10 | 0.095 |
| H | 0.12 | 0.20 | 0.16 |
| L | 0.07 | 0.09 | 0.08 |
| All Dimensions in mm | | | |

## Maximum Ratings and Electrical Characteristics

$T_A$ = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | DSK12 | DSK13 | DSK14 | DSK15 | DSK16 | DSK17 | DSK18 | DSK19 | DSK110 | DSK115 | DSK120 | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum RMS voltage | $V_{RMS}$ | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 105 | 140 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum average forward rectified current | $I_{(AV)}$ | 1.0 | | | | | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 25.0 | | | | | | | | | | | A |
| Maximum instantaneous forward voltage at 1.0A | $V_F$ | 0.55 | | | 0.70 | | 0.85 | | | | | 0.95 | V |
| Maximum DC reverse current $T_A$=25℃ | $I_R$ | 0.5 | | | | | | | | | 0.2 | | mA |
| at rated DC blocking voltage $T_A$=100℃ | | 10.0 | | | | | 5.0 | | | | 2.0 | | |
| Typical junction capacitance (NOTE 1) | $C_J$ | 110 | | | 80 | | | | | | | | pF |
| Operating junction temperature range | $T_J$ | -65 to +125 | | | | | -65 to +150 | | | | | | °C |
| Storage temperature range | $T_{STG}$ | -65 to +150 | | | | | | | | | | | °C |

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

# RATINGS AND CHARACTERISTIC CURVES DSK12 THRU DSK120

FIG. 1- FORWARD CURRENT DERATING CURVE

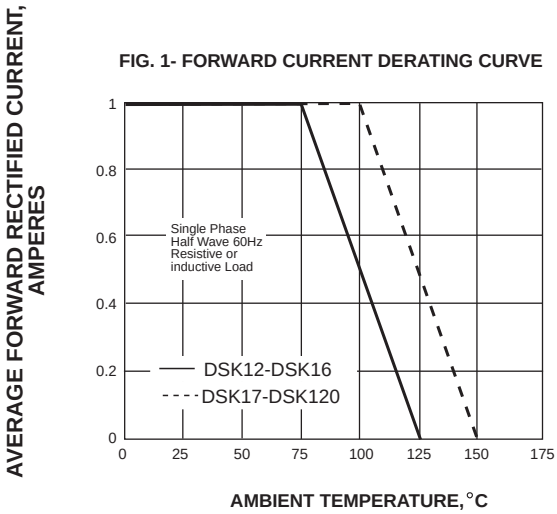



FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

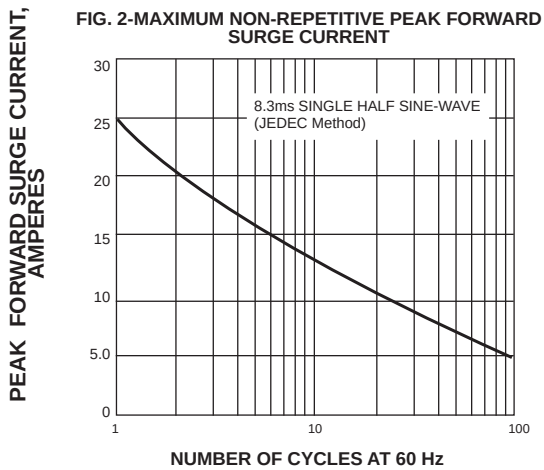



FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

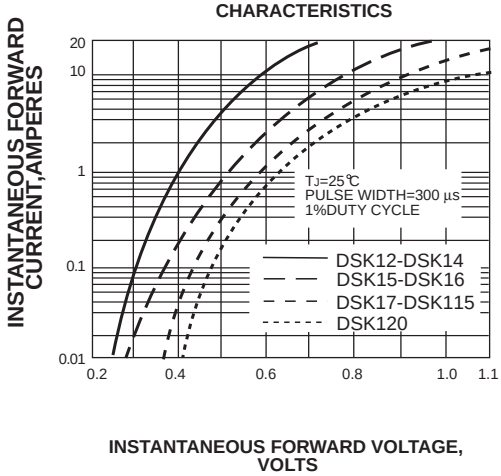



FIG. 4-TYPICAL REVERSE CHARACTERISTICS

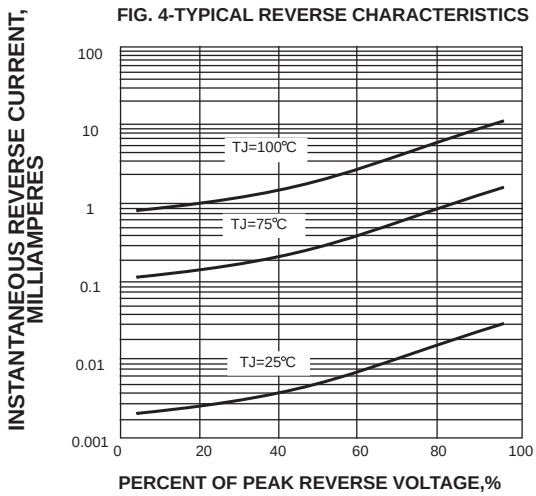



FIG. 5-TYPICAL JUNCTION CAPACITANCE

