



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SK12
THRU
SK110

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
VOLTAGE RANGE - 20 to 100 Volts CURRENT - 1.0 Ampere

FEATURES

- * Ideal for surface mounted applications
- * Low leakage current
- * Glass passivated junction

MECHANICAL DATA

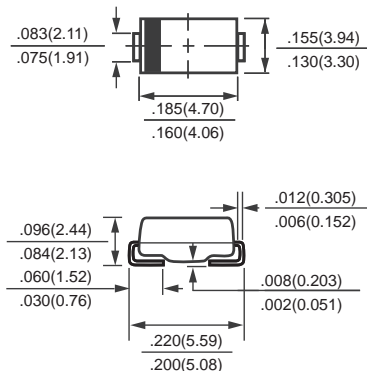
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.093 gram

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%.



SMB (DO-214AA)



Dimensions in inches and (millimeters)

| | SYMBOL | SK12 | SK13 | SK14 | SK15 | SK16 | SK18 | SK110 | UNITS |
|---|--------------|-------------|------|------|------|------|------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum RMS Voltage | VRMS | 14 | 21 | 28 | 35 | 42 | 56 | 70 | Volts |
| Maximum DC Blocking Voltage | Vdc | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum Average Forward Rectified Current at Derating Lead Temperature | IO | 1.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 30 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 1.0A DC | VF | 0.55 | | 0.70 | | 0.85 | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ TA = 25°C | 1.0 | | | | | | | mAmps |
| | @ TA = 100°C | 20 | | | | | | | |
| Typical Thermal Resistance (Note 2) | RθJA | 95 | | | | | | | °C/W |
| Typical Junction Capacitance (Note 1) | Cj | 130 | | | | | | | pF |
| Operating Temperature Range | TJ | -55 to +125 | | | | | | | °C |
| Storage Temperature Range | TSTG | -55 to +150 | | | | | | | °C |

- NOTES : 1. Thermal Resistance (Junction to Ambient)
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 3. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm²) copper pad area.

RATING AND CHARACTERISTIC CURVES (SK12 THRU SK110)

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

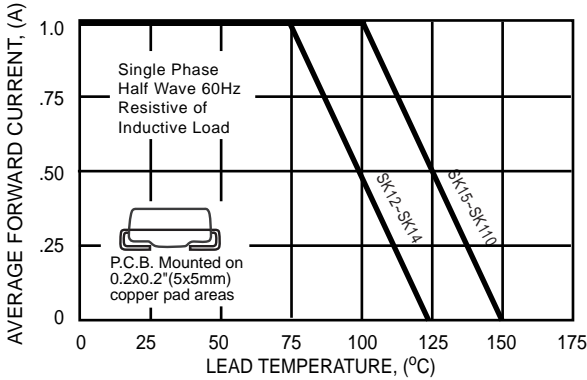


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

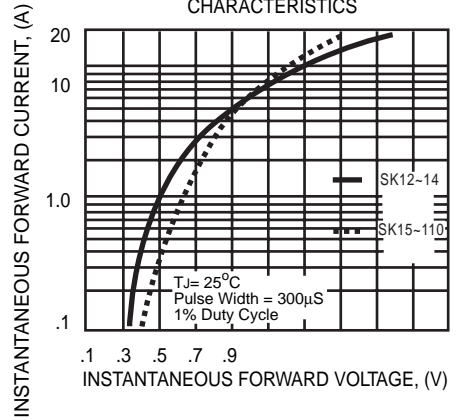


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

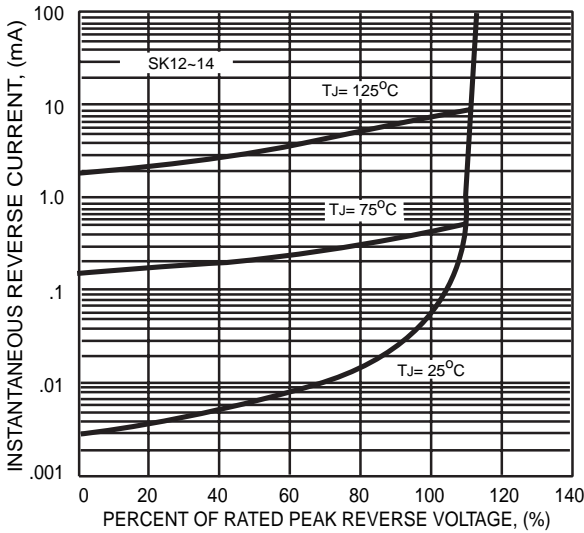


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

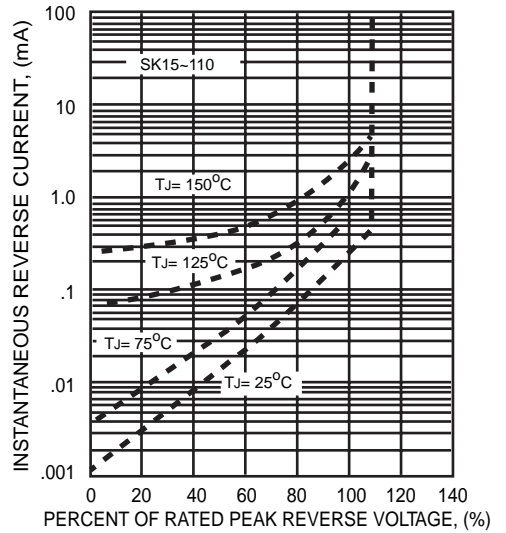


FIG.5 - TYPICAL JUNCTION CAPACITANCE

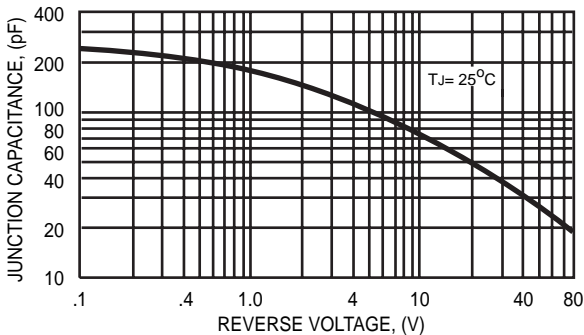
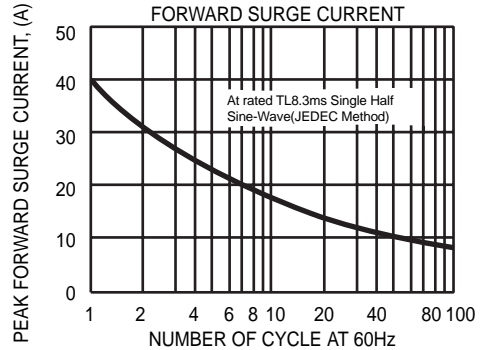


FIG.6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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