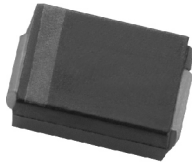


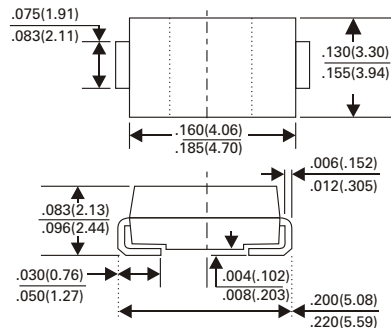
SK52B thru SK510B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 100 VOLTS CURRENT - 5.0 AMPERES



SMB/DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- For Surface Mounted Applications
- Low profile package
- Built-in strain relief
- Easy Pick And Place
- Plastic Material Used Carries Underwriters Laboratory Classification 94 V-0
- Extremely Low VF
- Majority Carrier Conduction
- High temperature soldering guarantee 250°C/10 seconds at terminals

MECHANICAL DATA

Case : Molded plastic
 Terminals : Solder plated
 Polarity : Indicated by cathode band
 Weight : 0.064 gram

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, derate current by 20%

| | SYMBOL | SK52B | SK53B | SK54B | SK55B | SK56B | SK58B | SK510B | UNITS |
|---|-----------------|-------------|-------|-------|-------|-------|-------|--------|--------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum Average Forward Rectified Current See Fig.1 | $I_{(AV)}$ | 5.0 | | | | | | | Amps |
| Maximum Overload Surge 8.3ms Single Half Sine-Wave | I_{FSM} | 150 | | | | | | | Amps |
| Typical Junction Capacitance (NOTE 1) | C_J | 300 | | | | | | | pF |
| Typical Thermal Resistance (NOTE 2) | $R_{\theta IL}$ | 17 | | | | | | | °C / W |
| Typical Thermal Resistance (NOTE 2) | $R_{\theta IA}$ | 55 | | | | | | | °C / W |
| Maximum Forward Voltage at 5.0A and 25°C | V_F | 0.55 | | 0.7 | | 0.85 | | | Volts |
| Maximum Reverse Current at 25°C | I_R | 1.0 | | | | | | | mA |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | °C |
| Operating Temperature Range | T_{OP} | -55 to +125 | | | | | | | °C |

NOTES :

1. Measured at 1.0MHz and Applied Reverse Voltage OF 4.0V
2. P.C.B Mounted 0.55" x 0.55" (14x14mm) 0.013mm Thick Copper Pad Areas
3. SMA Package Suffix " A" ,SMB Package Suffix " B" ,SMC NO Suffix

SK52B thru SK510B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

RATINGS AND CHARACTERISTIC CURVES S52B THRU SK510B

FIG.1 - FORWARD CURRENT DERATING CURVE

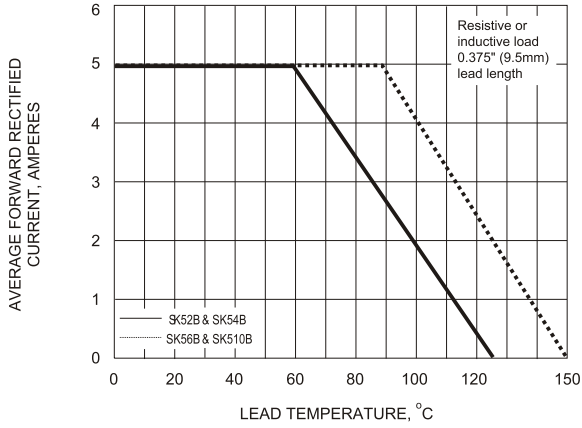


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

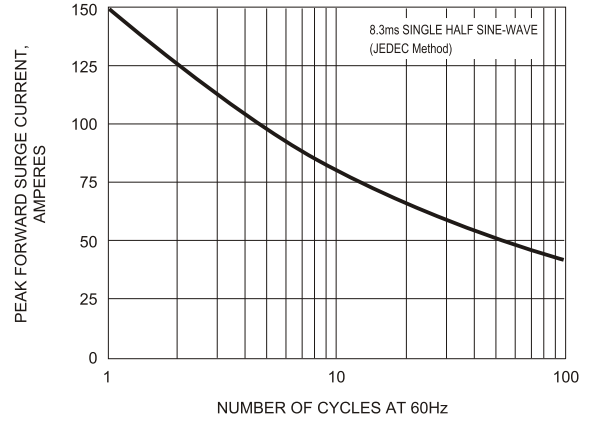


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

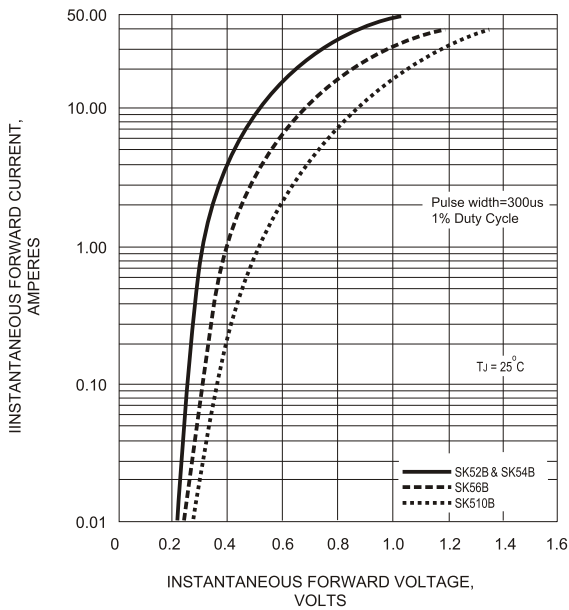


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

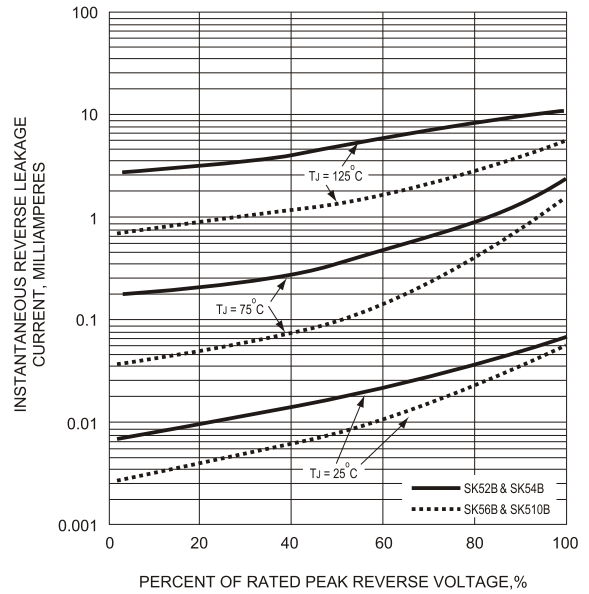


FIG.5 - TYPICAL JUNCTION CAPACITANCE

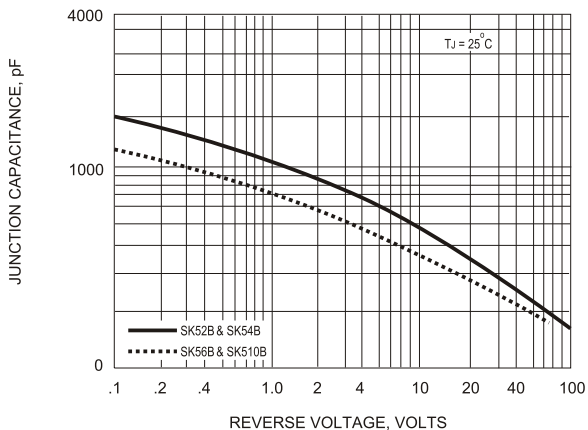


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

