

SK12 - SK1B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

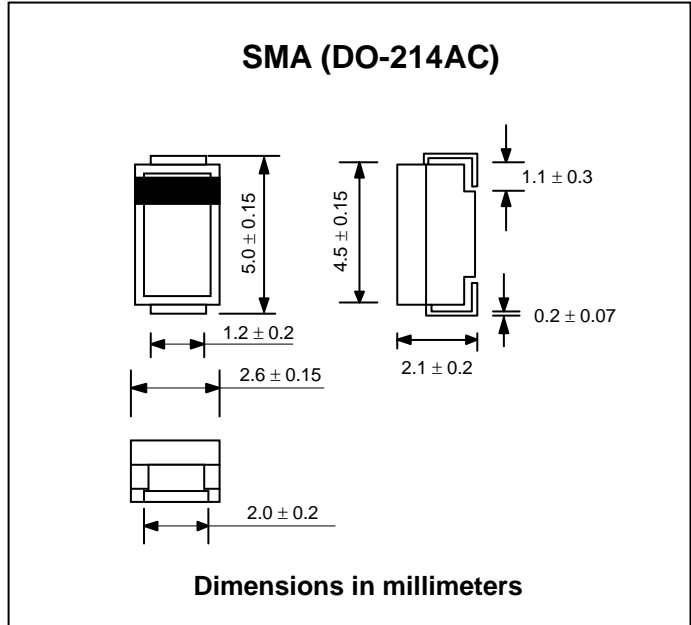
PRV : 20 - 100 Volts
I_o : 1.0 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low forward voltage drop
- * Low cost
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.067 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

| RATING | SYMBOL | SK 12 | SK 13 | SK 14 | SK 15 | SK 16 | SK 17 | SK 18 | SK 19 | SK 1B | UNIT | |
|---|--------------------|---------------|-------|-------|-------|-------|---------------|-------|-------|-------|------|----|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | V | |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | V | |
| Maximum Average Forward Current See Fig.1 | I _{F(AV)} | 1.0 | | | | | | | | | A | |
| Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method) | I _{FSM} | 40 | | | | | | | | | A | |
| Maximum Forward Voltage at I _F = 1.0 A | V _F | 0.5 | | | 0.7 | | | 0.79 | | | V | |
| Maximum Reverse Current at Ta = 25 °C | I _R | 0.5 | | | | | | | | | mA | |
| Rated DC Blocking Voltage (Note 1) Ta = 100 °C | I _{R(H)} | 10.0 | | | 5.0 | | | | | | mA | |
| Typical Thermal Resistance | R _{θJL} | 15 | | | | | | | | | °C/W | |
| Junction Temperature Range | T _J | - 40 to + 125 | | | | | - 65 to + 150 | | | | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 150 | | | | | | | | | °C | |

Note : (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.

RATING AND CHARACTERISTIC CURVES (SK12 - SK1B)

FIG.1 - FORWARD CURRENT DERATING CURVE

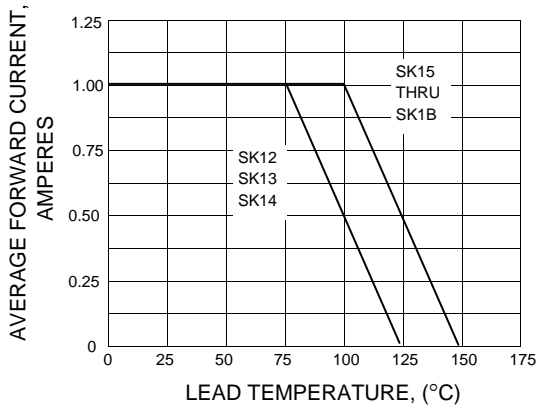


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

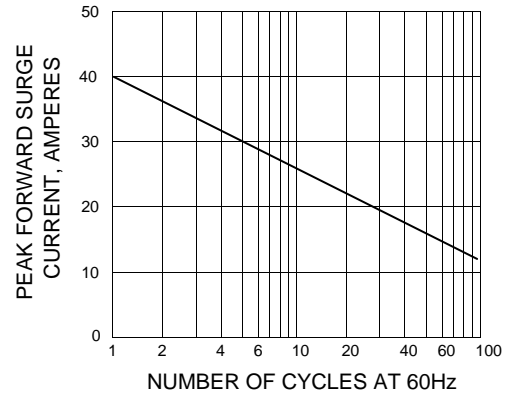


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

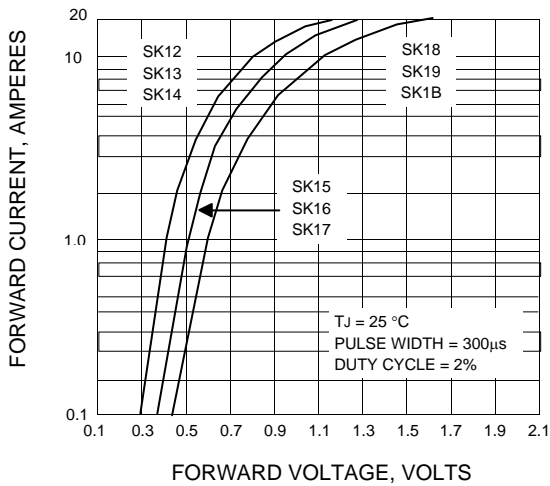


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

