

SK51SVF - SK53SVF

SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 15 - 30 Volts

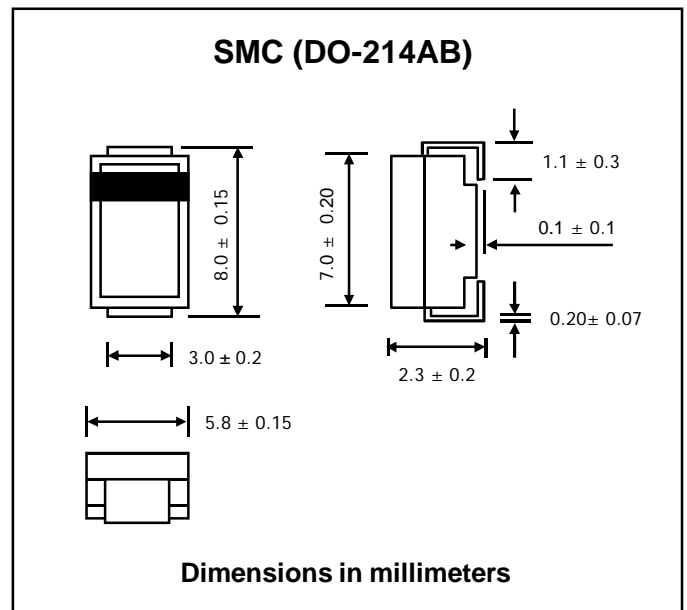
I_o : 5.0 Amperes

FEATURES :

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

MECHANICAL DATA :

- * Case : SMC Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.21 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 | SK51SVF | SK53SVF | UNIT |
|---|--------------------|---------------|---------|------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 15 | 30 | V |
| Maximum RMS Voltage | V _{RMS} | 11 | 21 | V |
| Maximum DC Blocking Voltage | V _{DC} | 15 | 30 | V |
| Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1 | I _{F(AV)} | 5.0 | | A |
| Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method) | I _{FSM} | 150 | | A |
| Maximum Forward Voltage at I _F = 5 A (Note 1) | V _F | 0.39 | 0.40 | V |
| Typical Forward Voltage at I _F = 5.0 A | V _F | 0.36 | | V |
| Maximum Reverse Current at Rated DC Blocking Voltage (Note 1) | Ta = 25 °C | 0.5 | | mA |
| | Ta = 100 °C | 50 | | mA |
| Junction Temperature Range | T _J | - 65 to + 125 | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 150 | | °C |

Notes :

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

RATING AND CHARACTERISTIC CURVES (SK51SVF - SK53SVF)

FIG.1 - FORWARD CURRENT DERATING CURVE

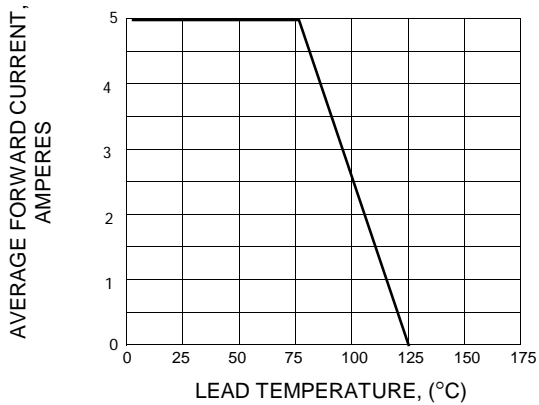


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

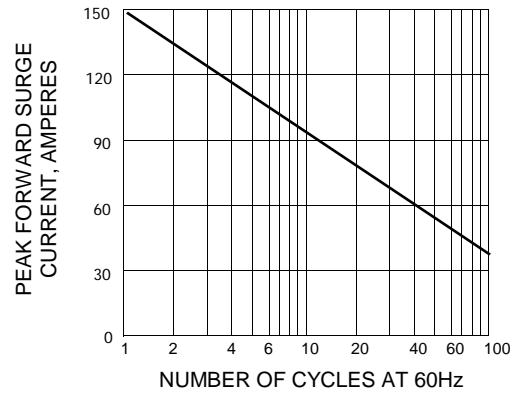


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

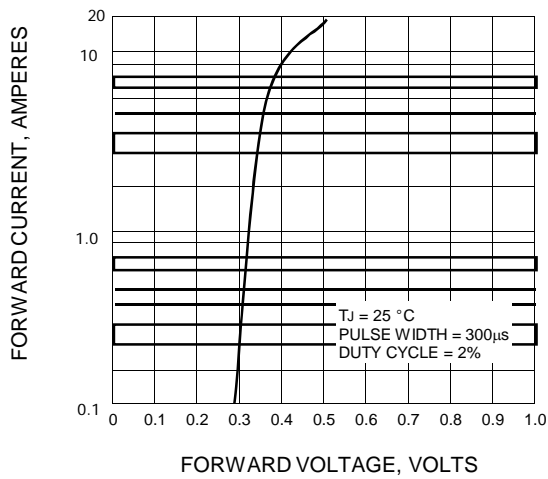


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

