

10BQ060

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

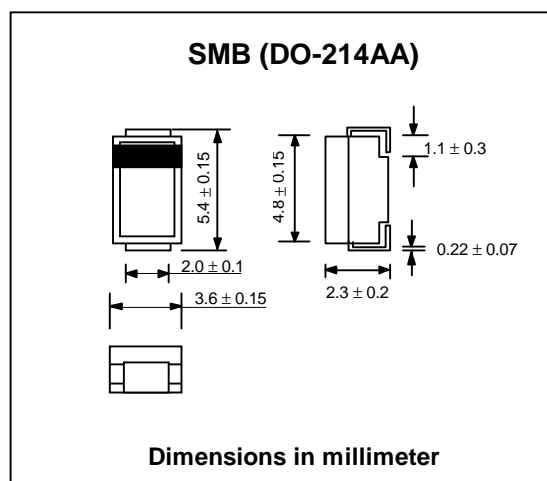
PRV : 60 Volts
I_o : 1.0 Ampere

FEATURES :

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

MECHANICAL DATA :

- * Case : SMB Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.1079 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 | VALUE | UNIT |
|---|--------------------|---------------|------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 60 | V |
| Maximum DC Blocking Voltage | V _{DC} | 60 | V |
| Maximum Average Forward Current (Note 1) | I _{F(AV)} | 1.0 | A |
| Maximum Peak One Cycle Non-Repetitive Surge Current, Following any Rated Load Condition, 10ms | I _{FSM} | 42 | A |
| Maximum Forward Voltage Drop (Note 2) (@ I _F = 1.0 A) (@ I _F = 2.0 A) | V _F | 0.57 0.73 | V |
| Maximum Reverse Current at T _J = 25°C | I _R | 0.1 | mA |
| Rated DC Blocking Voltage (Note 2) T _J = 125°C | I _{R(H)} | 5.0 | |
| Maximum Junction Capacitance V _R = 5V _{DC} , (test signal range 100 KHz to 1MHz) | C _T | 62 | pF |
| Maximum Thermal Resistance, Junction to Ambient | R _{θJA} | 140 | °C/W |
| Junction Temperature Range | T _J | - 55 to + 150 | °C |
| Storage Temperature Range | T _{STG} | - 55 to + 150 | °C |

Notes :

(1) 50% Duty Cycle, @TC = 103 °C, Rectangular waveform

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

RATING AND CHARACTERISTIC CURVES (10BQ060)

FIG.1 - FORWARD CURRENT DERATING CURVE

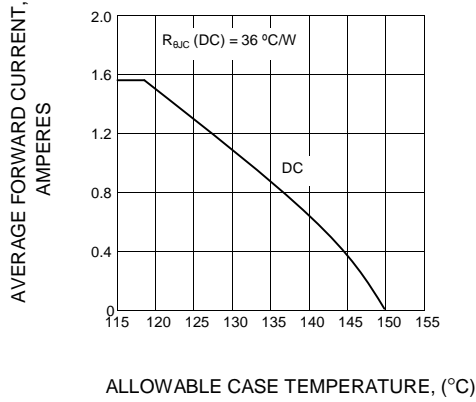


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

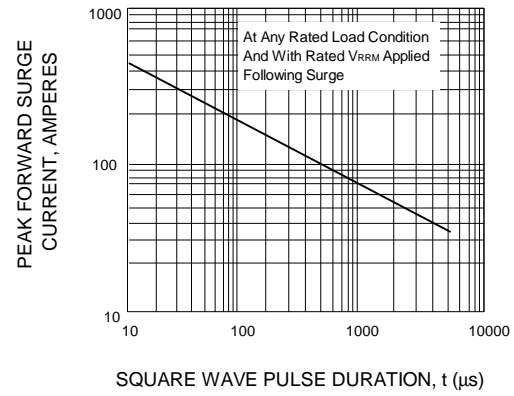


FIG.3 - MAXIMUM FORWARD CHARACTERISTICS

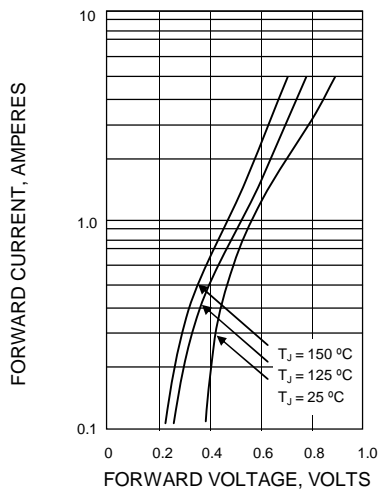


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

