

# 10BQ060

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

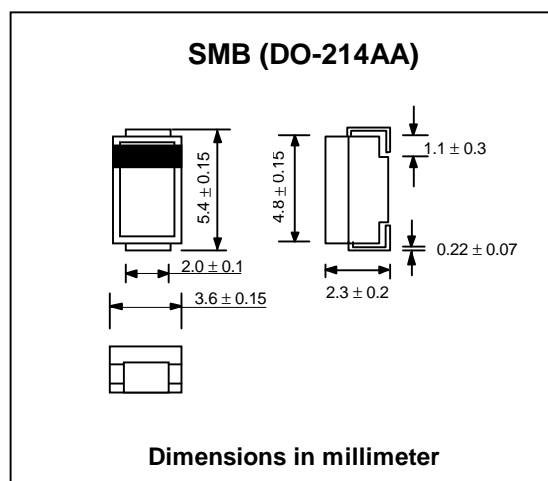
**PRV : 60 Volts**  
**I<sub>o</sub> : 1.0 Ampere**

### 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 <sub>RRM</sub>	60	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	60	V
Maximum Average Forward Current (Note 1)	I <sub>F(AV)</sub>	1.0	A
Maximum Peak One Cycle Non-Repetitive Surge Current, Following any Rated Load Condition, 10ms	I <sub>FSM</sub>	42	A
Maximum Forward Voltage Drop (Note 2) (@ I <sub>F</sub> = 1.0 A) (@ I <sub>F</sub> = 2.0 A)	V <sub>F</sub>	0.57 0.73	V
Maximum Reverse Current at T <sub>J</sub> = 25°C	I <sub>R</sub>	0.1	mA
Rated DC Blocking Voltage (Note 2) T <sub>J</sub> = 125°C	I <sub>R(H)</sub>	5.0	
Maximum Junction Capacitance V <sub>R</sub> = 5V <sub>DC</sub> , (test signal range 100 KHz to 1MHz)	C <sub>T</sub>	62	pF
Maximum Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	140	°C/W
Junction Temperature Range	T <sub>J</sub>	- 55 to + 150	°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150	°C

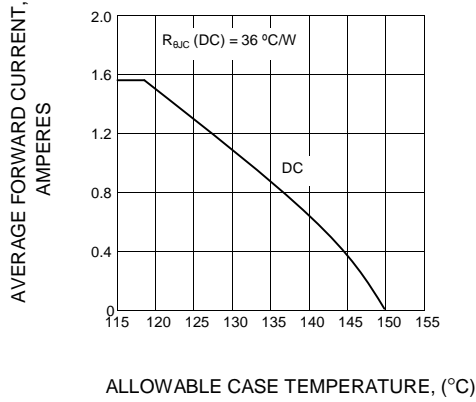
### Notes :

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

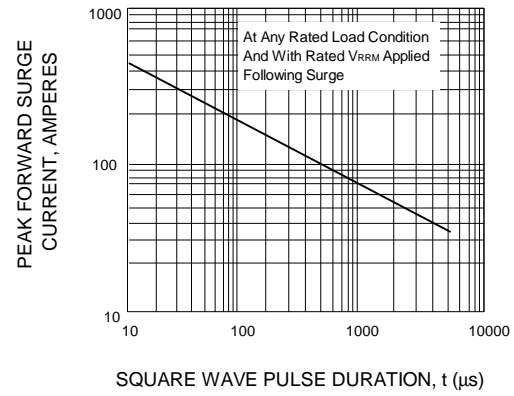
(2) Pulse Test : Pulse Width = 300 μs, Duty Cycle < 2%.

### RATING AND CHARACTERISTIC CURVES ( 10BQ060 )

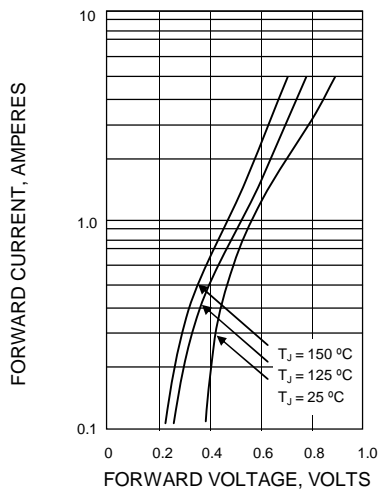
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - MAXIMUM FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

