

10BQ015

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

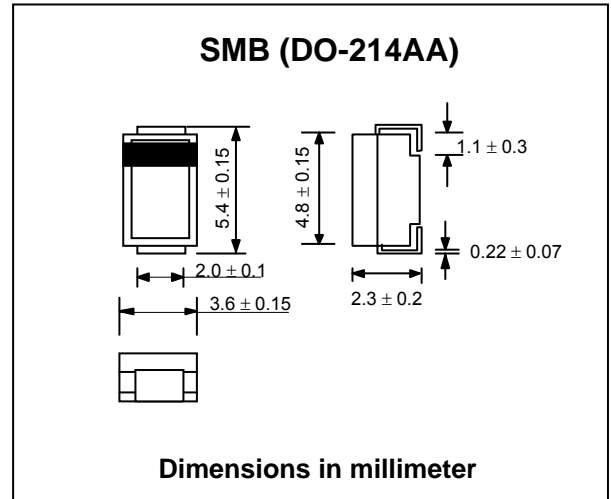
PRV : 15 Volts
I_o : 1.0 Ampere

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-0 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 specific.

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}	15	V
Maximum DC Blocking Voltage	V _{DC}	15	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}	40	A
Maximum Forward Voltage Drop (Note 2) (@ I _F = 1.0 A , T _J = 25°C) (@ I _F = 2.0 A , T _J = 125°C)	V _F	0.34 0.40	V
Maximum Reverse Current at Rated DC Blocking Voltage (Note 2)	I _R I _{R(H)}	0.5 12.0	mA
Maximum Junction Capacitance V _R = 5V _{DC} , (test signal range 100 KHz to 1MHz)	C _T	390	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, @T_c = 78 °C, Rectangular waveform
- (2) Pulse Test : Pulse Width = 300μs, Duty Cycle < 2%.

RATING AND CHARACTERISTIC CURVES (10BQ015)

FIG.1 - FORWARD CURRENT DERATING CURVE

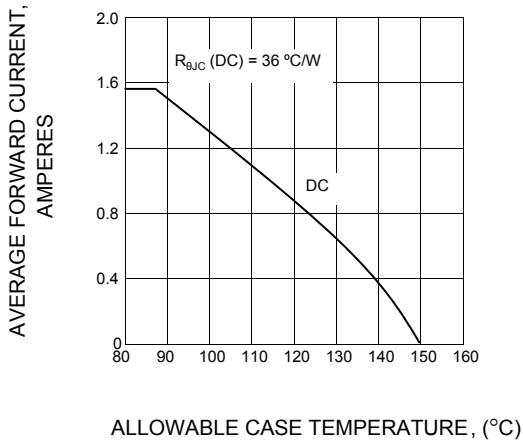


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

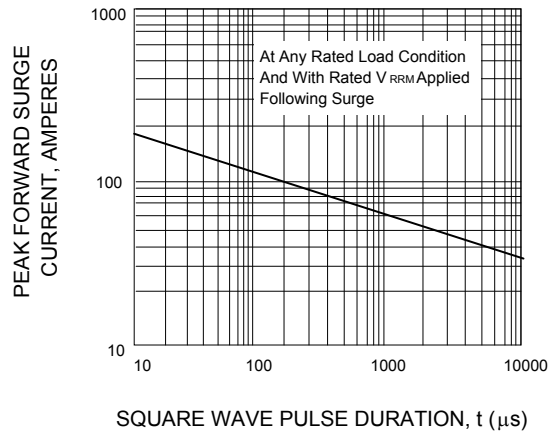


FIG.3 - MAXIMUM FORWARD CHARACTERISTICS

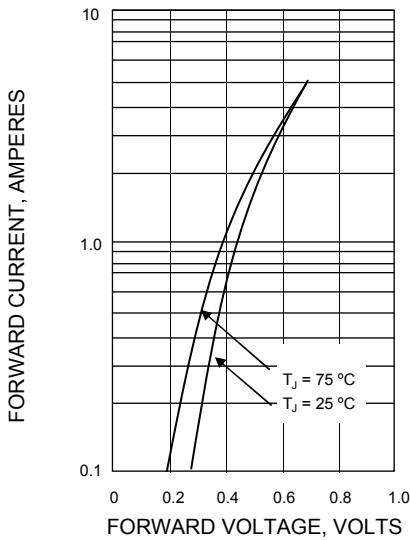


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

