

MBRA120ET3G

PRV : 20 Volts

Io : 1.0 Ampere

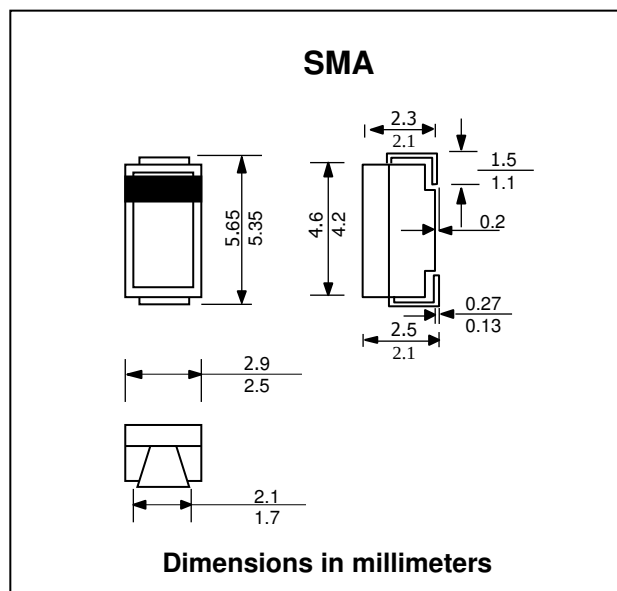
FEATURES :

- * Highly Stable Oxidation Passivated Junction
- * Guardring for Over - Voltage Protection
- * Optimized for Low Leakage Current
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.060 gram (Approximately)

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Ta=25°C)

RATING	SYMBOL	VALUE	UNIT
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	20	V
Maximum Working Peak Reversr Voltage	V_{RWM}	20	V
Maximum DC Blocking Voltage	V_{DC}	20	V
Maximum Average Forward Current at $T_c = 125\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	1.0	V
Maximum Non-Repetitive Peak Surge Current (Surge Applied at Rate Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	40	A
Maximum Instantaneous Forward Voltage (Note 1) ($I_F = 1.0\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$) ($I_F = 2.0\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$)	V_F	0.530 0.595	V
Maximum Instantaneous Reverse Current (Note 1) ($V_R = \text{rated } V_R$, $T_J = 25\text{ }^{\circ}\text{C}$) ($V_R = \text{rated } V_R$, $T_J = 100\text{ }^{\circ}\text{C}$)	I_R I_{RH}	10 1600	μA
Thermal Resistance Junction to Lead (Note 2)	$R_{\theta JL}$	34	$^{\circ}\text{C/W}$
Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	138	$^{\circ}\text{C/W}$
Storage/Operating Junction Temperature Range	T_{STG}, T_J	- 55 to + 150	$^{\circ}\text{C}$

Notes :

- (1) Pulse Test : Pulse Width $\leq 250\text{ }\mu\text{s}$, Duty Cycle $\leq 2\%$.
- (2) Mounted on a Pad Size of $5\text{ mm} \times 5\text{ mm}$, PC Board FR4 (2 pads).

RATING AND CHARACTERISTIC CURVES (MBRA120ET3G)

**FIG.1 - CURRENT DERATING,
JUNCTION TO CASE**

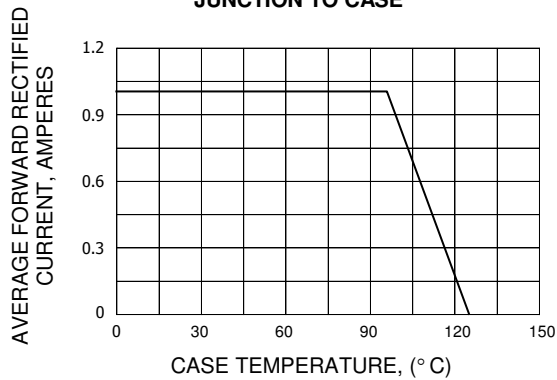
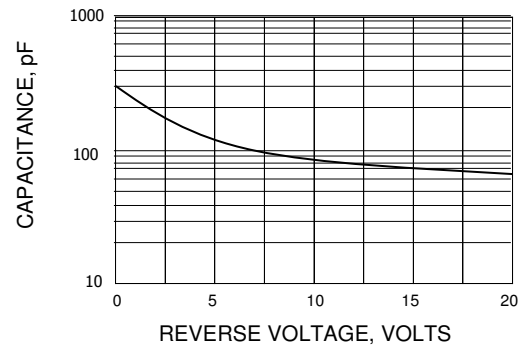


FIG.2 - TYPICAL JUNCTION CAPACITANCE



**FIG.3 - MAXIMUM INSTANTANEOUS
FORWARD VOLTAGE**

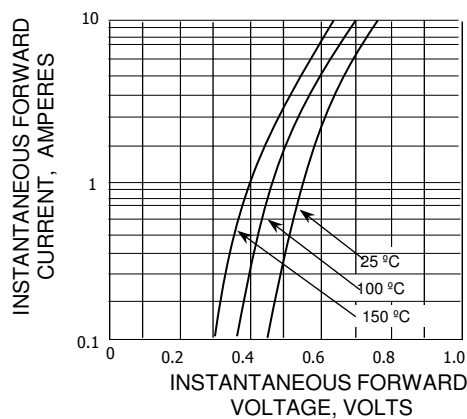


FIG. 4 - TYPICAL REVERSE CURRENT

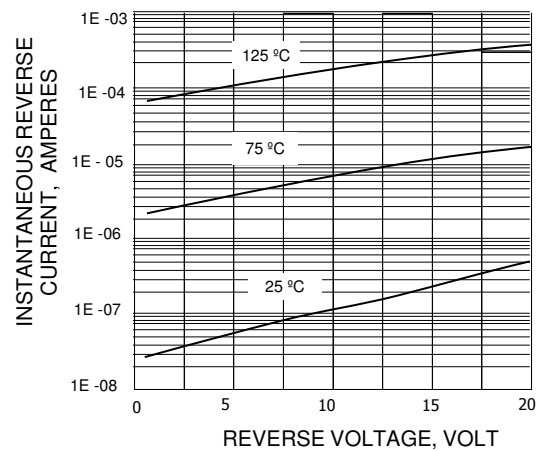


FIG. 5 - FORWARD POWER DISSIPATION

