

MBRA140T3G

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

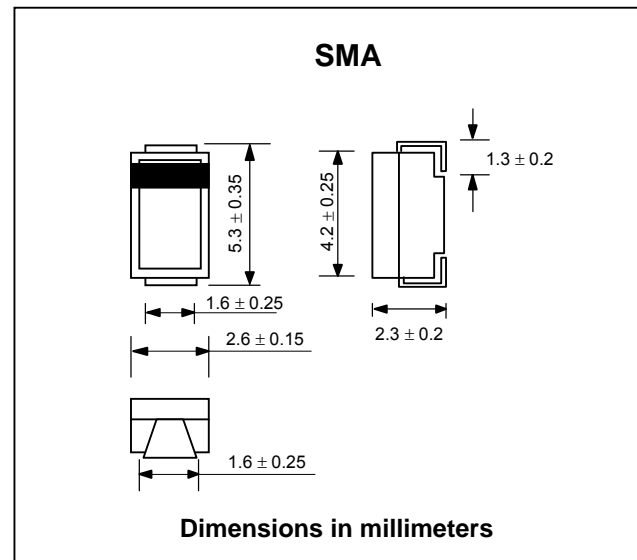
PRV : 40 Volts
Io : 1.0 Ampere

FEATURES :

- * Very Low Forward Voltage Drop
- * Highly Stable Oxidation Passivated Junction
- * Guardring for Stress Protection
- * Rectangular Package for Automated Handling
- * 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)



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

RATING	SYMBOL	VALUE	UNIT
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Maximum Working Peak Reverse Voltage	V_{RWM}	40	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Current at $T_C = 95^\circ\text{C}$	$I_{F(AV)}$	1.0	A
Maximum Non-Repetitive Peak Surge Current (Surge Applied at Rate Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage (Note 1) ($I_F = 1.0\text{ A}$, $T_J = 25^\circ\text{C}$) ($I_F = 2.0\text{ A}$, $T_J = 25^\circ\text{C}$)	V_F	0.55	V
		0.71	
Maximum Instantaneous Reverse Current (Note 1) ($V_R = 40\text{ V}$, $T_J = 25^\circ\text{C}$) ($V_R = 40\text{ V}$, $T_J = 100^\circ\text{C}$)	I_R	0.5	mA
	I_{RH}	10	
Thermal Resistance Junction to Lead	$R_{\theta JL}$	35	$^\circ\text{C/W}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	86	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	- 55 to + 125	$^\circ\text{C}$
Storage/Operating Case Temperature Range	T_{STG, T_C}	- 55 to + 150	$^\circ\text{C}$

Note: (1) Pulse Test : Pulse Width $\leq 250\ \mu\text{s}$, Duty Cycle $\leq 2.0\ \%$.

RATING AND CHARACTERISTIC CURVES (MBRA140T3G)

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

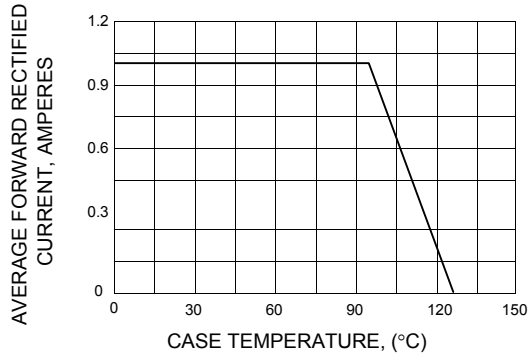


FIG.2 - TYPICAL JUNCTION CAPACITANCE

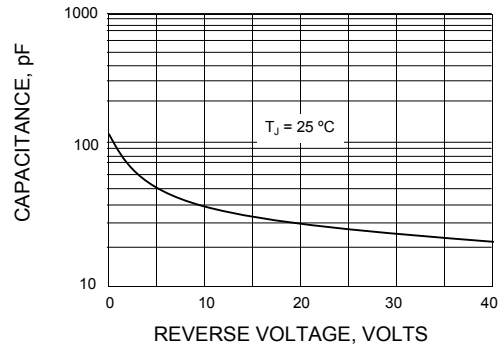


FIG.3 - MAXIMUM INSTANTANEOUS

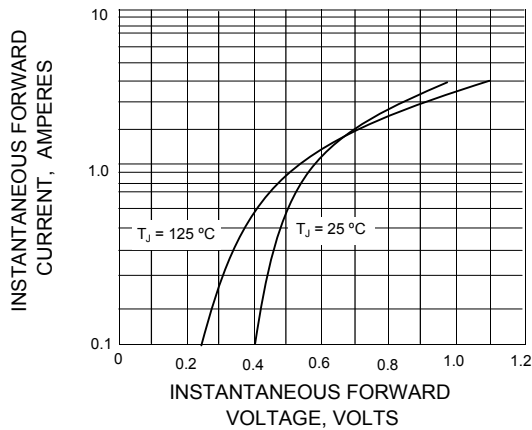


FIG.4 - TYPICAL REVERSE CURRENT

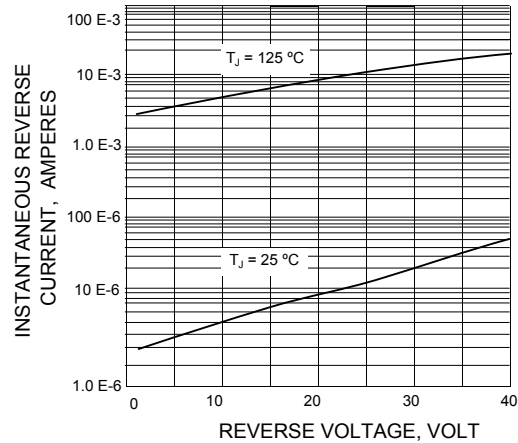


FIG.5 - FORWARD POWER DISSIPATION

