

MBRA140T3G

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

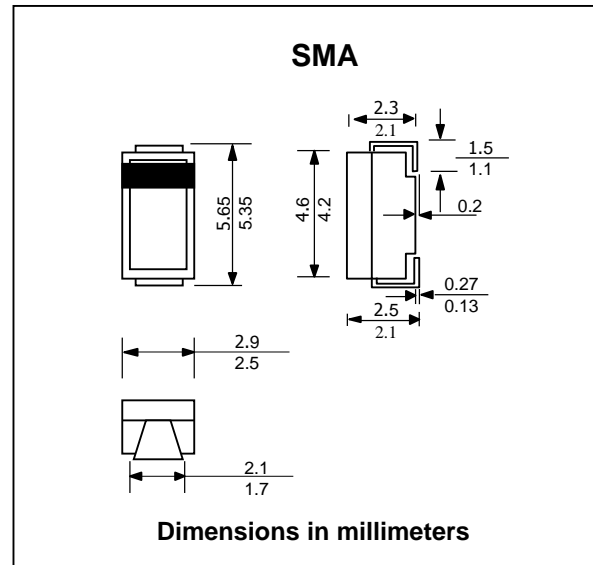
PRV : 40 Volts
Io : 1.0 Ampere

FEATURES :

- * Very Low Forward Voltage Drop
- * Highly Stable Oxidation Passivated Junction
- * Guardring for Stress Protection
- * Rectangular Package for Automated Handling
- * Moisture Sensitivity Level 1 (Unlimited)
- * 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 Reversr Voltage	V_{RWM}	40	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Current at $T_C = 95^\circ C$	$I_{F(AV)}$	1.0	V
Maximum Non-Repetitive Peak Surge Current (Surge Applied at Rate Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage (Note 1) ($I_F = 1.0 A, T_J = 25^\circ C$) ($I_F = 2.0 A, T_J = 25^\circ C$)	V_F	0.55 0.71	V
Maximum Instantaneous Reverse Current (Note 1) ($V_R = 40V, T_J = 25^\circ C$) ($V_R = 40V, T_J = 100^\circ C$)	I_R I_{RH}	0.5 10	mA
Thermal Resistance Junction to Lead	$R_{\theta JL}$	35	$^\circ C/W$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	86	$^\circ C/W$
Operating Junction Temperature Range	T_J	- 55 to + 125	$^\circ C$
Storage/Operating Case Temperature Range	T_{STG}, T_C	- 55 to + 150	$^\circ C$

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



RATING AND CHARACTERISTIC CURVES (MBRA140T3G)

FIG.1 - CURRENT DERATING, JUNCTION TO CASE

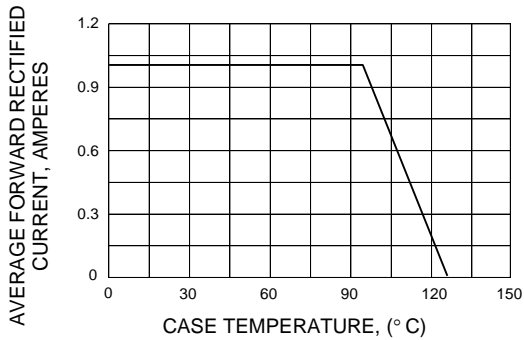


FIG.2 - TYPICAL JUNCTION CAPACITANCE

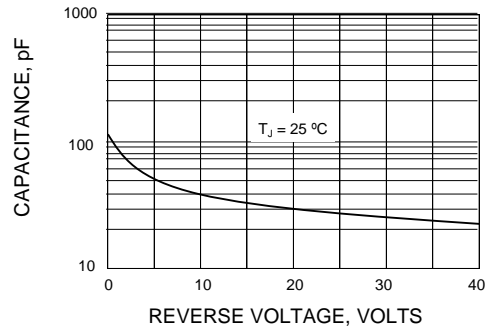


FIG.3 - MAXIMUM INSTANTANEOUS FORWARD VOLTAGE

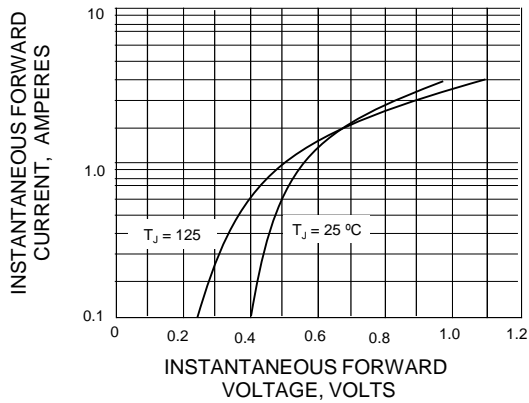


FIG. 4 - TYPICAL REVERSE CURRENT

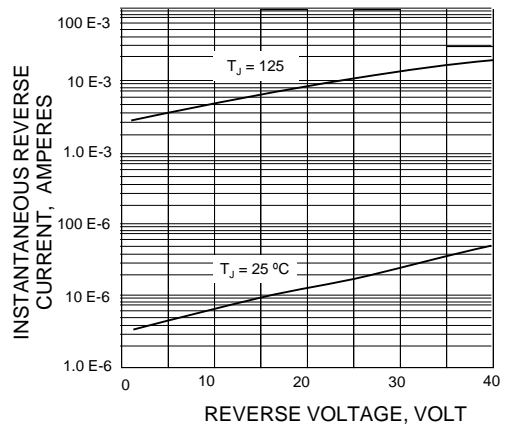


FIG. 5 - FORWARD POWER DISSIPATION

