

MRA4003 - MRA4007

PRV : 300 - 1000 Volts

Io : 1.0 Ampere

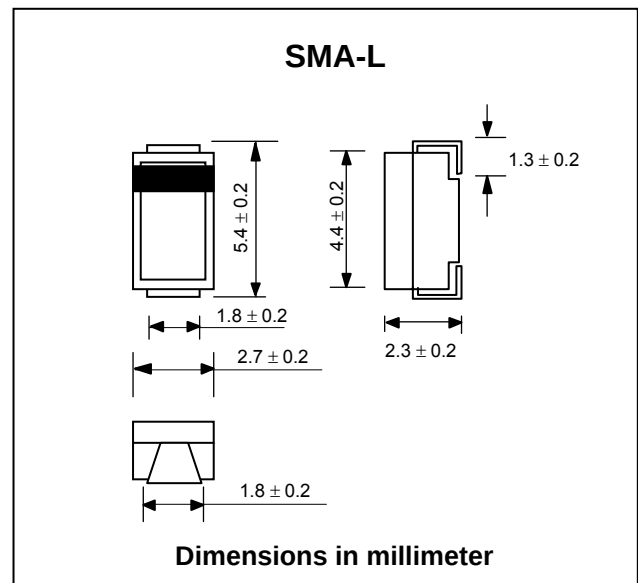
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Pb / RoHS Free

MECHANICAL DATA :

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

SURFACE MOUNT RECTIFIERS



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	MAR4003	MAR4004	MAR4005	MAR4006	MAR4007	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	300	400	600	800	1000	V
Maximum Working Peak Reverse Voltage	V_{RWM}	300	400	600	800	1000	V
Maximum DC Blocking Voltage	V_{DC}	300	400	600	800	1000	V
Maximum Average Forward Current (at Rated V_R , $T_L = 150\text{ }^{\circ}\text{C}$)	$I_{F(AV)}$	1.0					A
Maximum Non-Repetitive Peak Surge Current (Surge applied at rated load condition, Halfwave , single phase, 60Hz)	I_{FSM}	30					A
Maximum Instantaneous Forward Voltage at $I_F = 1.0\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$ at $I_F = 2.0\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$	V_F	1.10 1.18					V
Maximum Instantaneous Reverse Current (at rated DC Voltage) $T_J = 25\text{ }^{\circ}\text{C}$	I_{RM}	10					μA
Junction Temperature Range	T_J	- 55 to + 175					$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150					$^{\circ}\text{C}$

Note : (1) Pulse Test: Pulse Width $\leq 250\text{ }\mu\text{s}$, Duty Cycle $\leq 2\%$.

RATING AND CHARACTERISTIC CURVES (MRA4003 - MRA4007)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

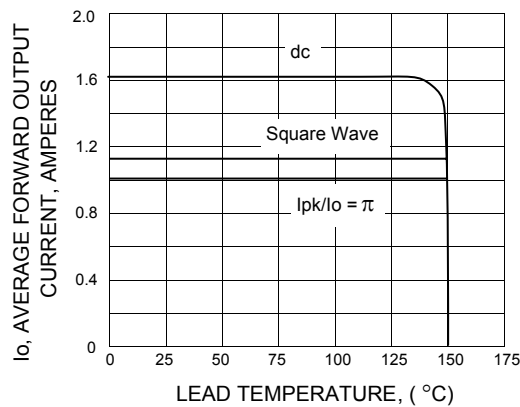


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

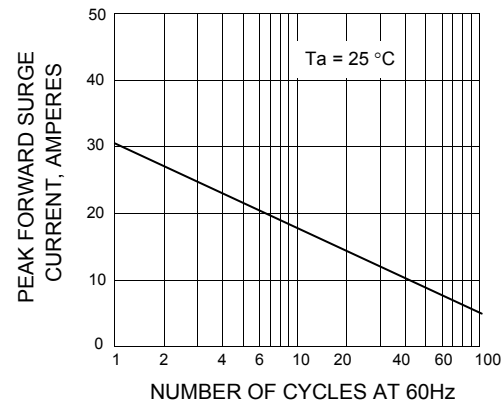


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

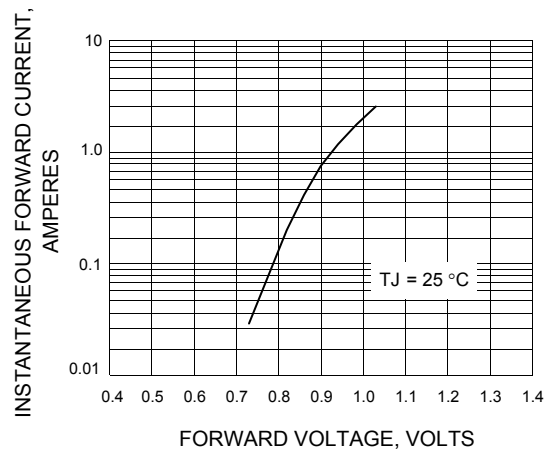


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

