

10MQ100N

PRV : 100 Volts

$I_{F(AV)}$: 1.5 Amperes

FEATURES :

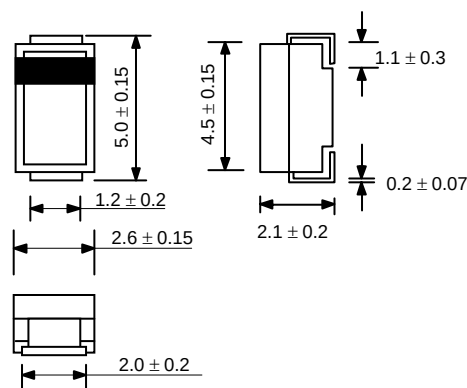
- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low forward voltage drop
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.067 gram

SURFACE MOUNT SCHOTTKY RECTIFIER

SMA (DO-214AC)



Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specifie.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNIT
Maximum Working Peak Reverse Voltage	V_{RWM}	100	V
Maximum DC Reverse Voltage	V_R	100	V
Maximum Average Forward Current , $T_L = 126\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	1.5	A
Maximum Peak Forward Surge Current, One cycle Non-Repetitive , 10ms sine wave	I_{FSM}	30	A
Maximum Forward Voltage at $I_F = 1.0\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$	V_F	0.78	V
Maximum Forward Voltage at $I_F = 1.5\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$		0.85	
Maximum Reverse Current at $T_J = 25\text{ }^{\circ}\text{C}$	I_R	0.1	mA
Rated DC Blocking Voltage (Note 1) $T_J = 125\text{ }^{\circ}\text{C}$	$I_{R(H)}$	1.0	
Typical Thermal Resistance	$R_{\theta JA}$	80	$^{\circ}\text{C/W}$
Junction Temperature Range	T_J	- 55 to + 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150	$^{\circ}\text{C}$

Note : (1) Pulse Test : Pulse Width = 300 μs , Duty Cycle = 2%.

RATING AND CHARACTERISTIC CURVES (10MQ100N)

FIG.1 - FORWARD CURRENT DERATING CURVE

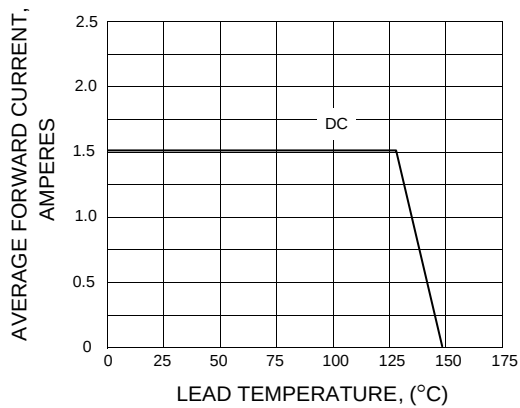


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

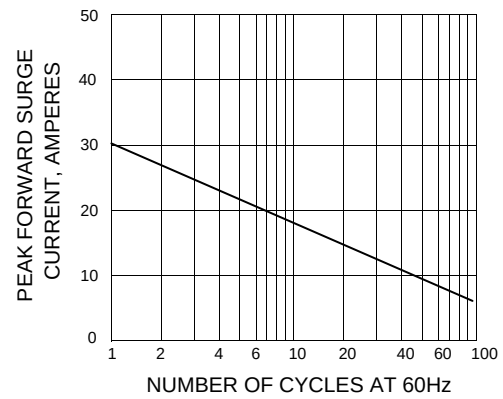


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

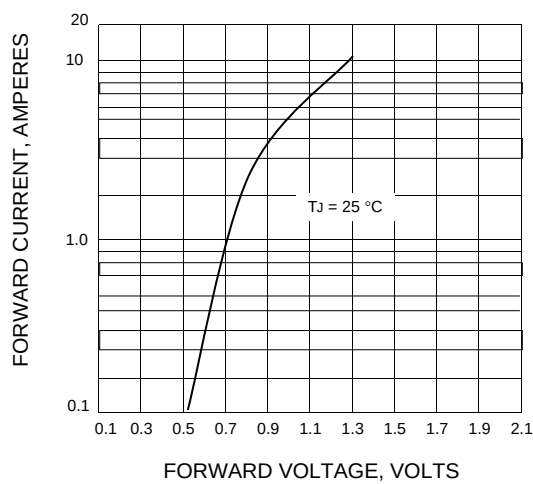


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

