

# 10MQ100N

## SURFACE MOUNT SCHOTTKY RECTIFIER

**PRV : 100 Volts**

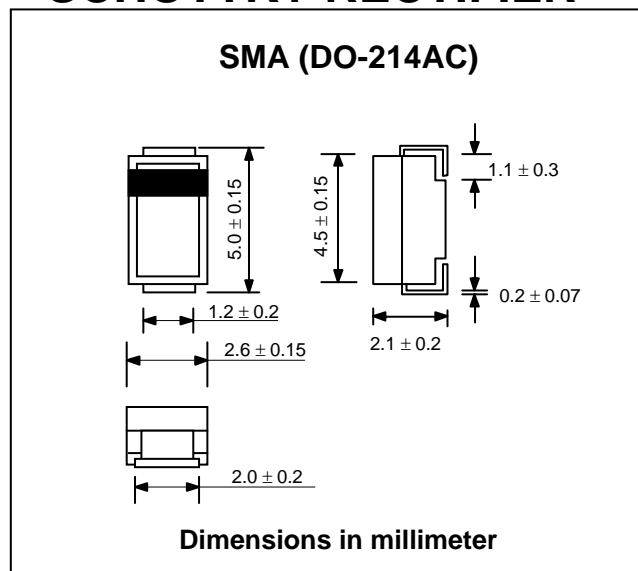
**$I_{F(AV)}$  : 1.5 Amperes**

### 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



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specific.

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

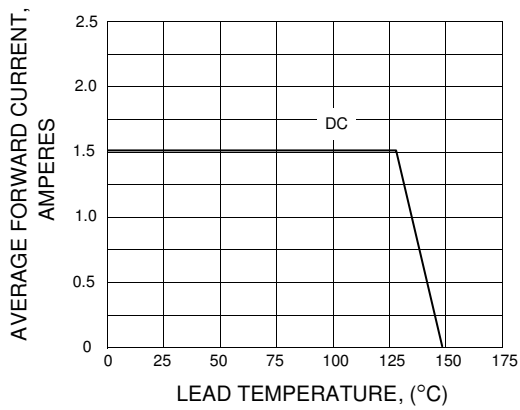
For capacitive load, derate current by 20%.

RATING	SYMBOL	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	$^\circ\text{C}$

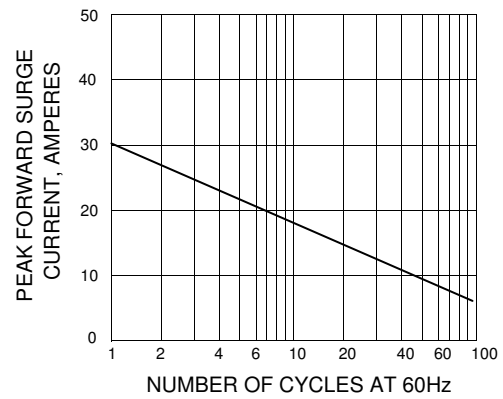
**Note :** (1) Pulse Test : Pulse Width = 300  $\mu\text{s}$ , Duty Cycle = 2%.

## RATING AND CHARACTERISTIC CURVES ( 10MQ100N )

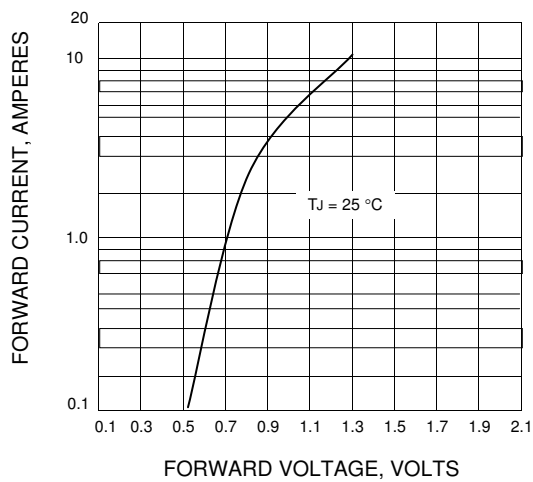
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

