

# 10MQ040N

**PRV : 40 Volts**

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

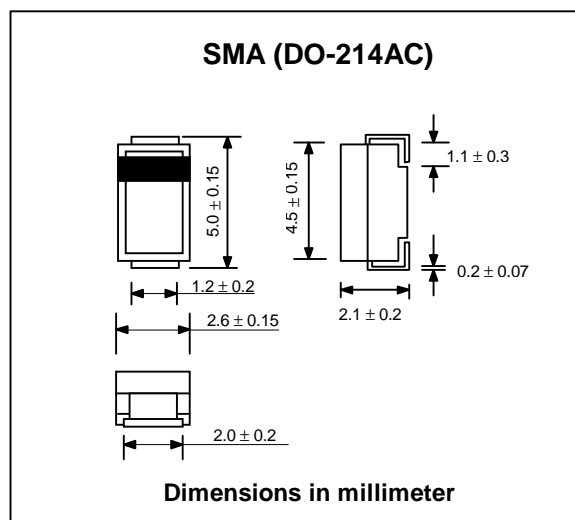
### FEATURES :

- \* 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

## SCHOTTKY RECTIFIER



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNIT
Maximum Work Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum DC Reverse Voltage	$V_R$	40	V
Maximum Average Forward Current , $T_L = 123\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.5	A
Maximum Peak Forward Surge Current, One cycle Non-Repetitive , 10ms sine wave	$I_{FSM}$	30	A
Maximum Forward Voltage at $I_F = 1.0\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$	$V_F$	0.54	V
Maximum Forward Voltage at $I_F = 1.5\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$		0.62	
Maximum Reverse Current at $T_J = 25\text{ }^\circ\text{C}$	$I_R$	0.5	mA
Rated DC Blocking Voltage (Note 1) $T_J = 100\text{ }^\circ\text{C}$	$I_{R(H)}$	26	
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 ( 10MQ040N )

FIG.1 - FORWARD CURRENT DERATING CURVE

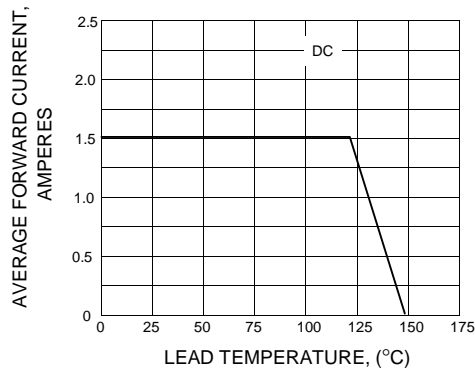


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

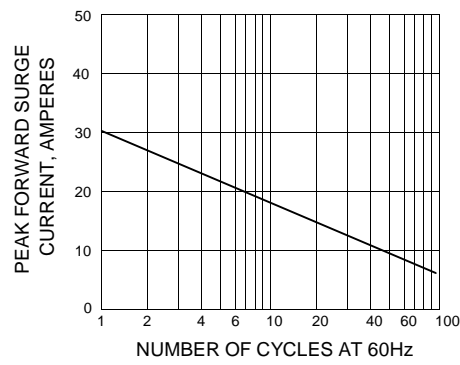


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

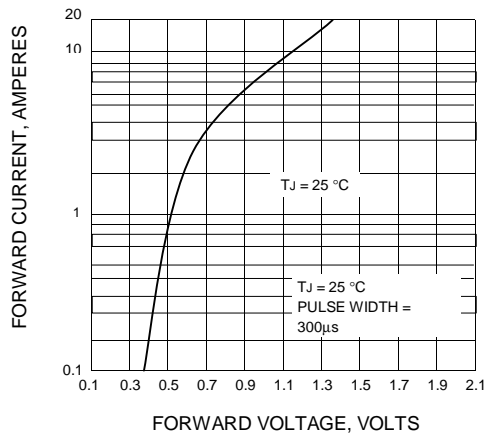


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

