

# MURA130, MURA140

**PRV : 300 - 400 Volts**  
**Io : 1.0 Amperes**

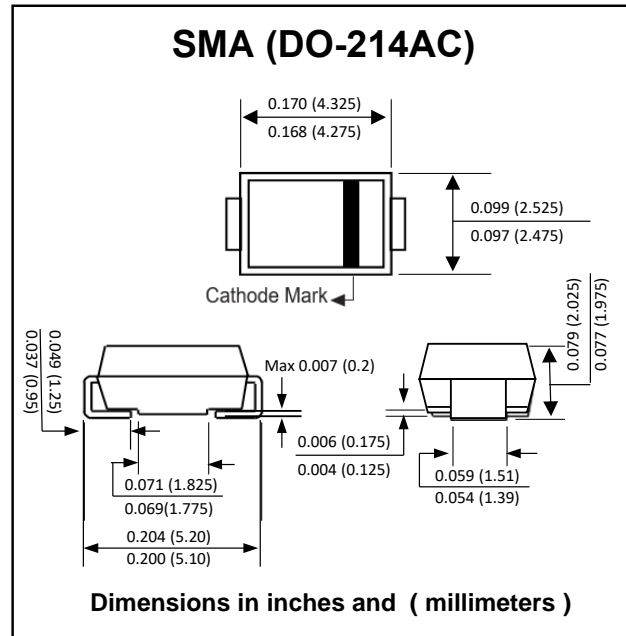
### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Super fast recovery time
- \* **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 SUPER FAST RECTIFIERS



### 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%.

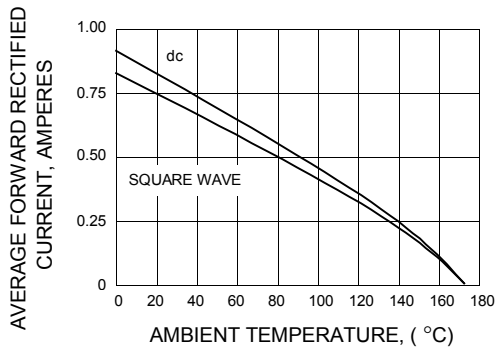
RATING	SYMBOL	MURA130	MURA140	UNIT
Maximum Peak Repetitive Reverse Voltage	VRRM	300	400	V
Maximum Working Peak Reverse Voltage	VRWM	300	400	V
Maximum DC Blocking Voltage	VDC	300	400	V
Maximum Average Forward Current @ <sub>T<sub>L</sub></sub> = 150 °C	IF(AV)	1.0		V
Maximum Non-Repetitive Peak Surge Current (Surge Applied at Rate Load Conditions Halfwave, Single Phase, 60 Hz)	IFSM	35		A
Maximum Instantaneous Forward Voltage at I <sub>F</sub> = 1.0 A (Note 1)	V <sub>F</sub>	1.1 (T <sub>J</sub> = 25°C) 0.8 (T <sub>J</sub> = 150°C)		V
Maximum Instantaneous Reverse Current (Note 1) (Rated dc Voltage)	IR IR(H)	5.0 (T <sub>J</sub> = 25°C) 150 (T <sub>J</sub> = 150°C)		μA
Thermal Resistance, Junction to Ambient (Note 2)	R <sub>θJA</sub>	216		°C/W
Maximum Reverse Recovery Time (I <sub>F</sub> =1.0A, di/dt = 50A/μs)	T <sub>rr</sub>	65		ns
Operating Junction Temperature Range	T <sub>J</sub>	- 65 to + 175		°C

### Notes :

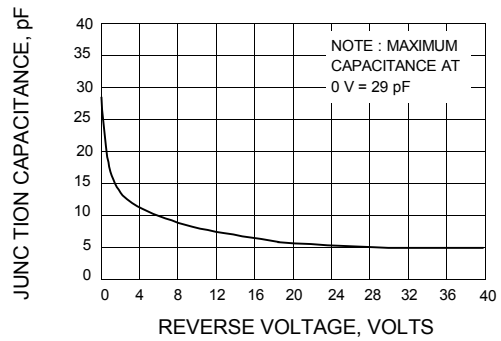
- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle ≤ 2.0 %.
- (2) Rating Applies when surface mounted on the minimum pad size recommended, PC Board FR-4.

**RATING AND CHARACTERISTIC CURVES (MURA130, MURA140)**

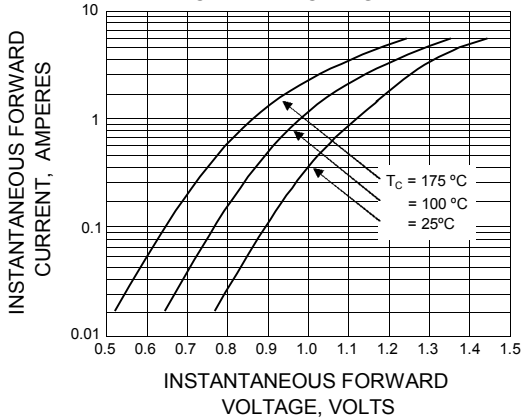
**FIG.1 - CURRENT DERATING, AMBIENT  
(FR-4 BOARD WITH MINIMUM PAD)**



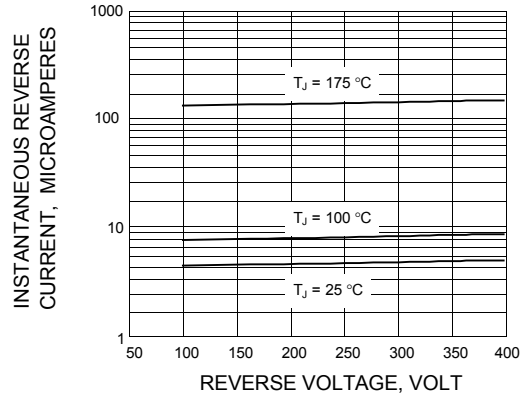
**FIG.2 - MAXIMUM JUNCTION CAPACITANCE**



**FIG.3 - MAXIMUM INSTANTANEOUS  
FORWARD VOLTAGE**



**FIG. 4 - MAXIMUM REVERSE CURRENT**



**FIG. 5 - POWER DISSIPATION**

