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MURA120

SURFACE MOUNT ULTRAFAST RECTIFIER

PRV : 200 Volts
Io : 1.0 Amperes

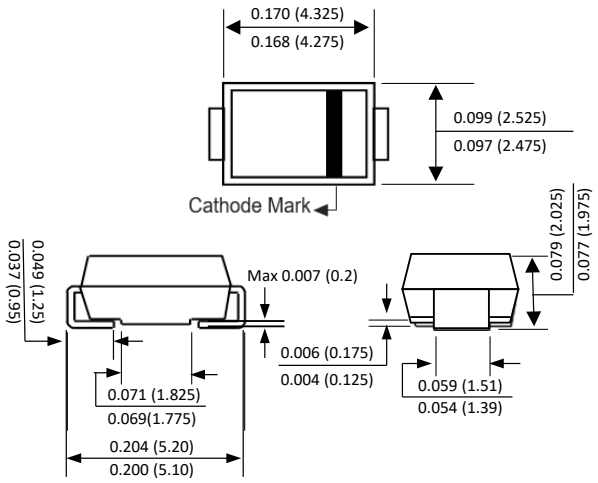
FEATURES :

* Small Compact Surface Mountable Package
* HighTemperature Glass Passivated Junction
* Low forward voltage drop
* Ultra fast recovery time
* Pb / RoHS Free

MECHANICAL DATA :

* Case : SMA Molded plastic
* Epoxy : UL94V-0 rate flame retardant
* Lead : Lead Formed for Surface Mount
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.067 gram

SMA (DO-214AC)



Dimensions in inches and (millimeters)

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 Peak Repetitive Reverse Voltage	V_{RRM}	200	V
Maximum Working Peak Reverse Voltage	V_{RWM}	200	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Current @T_L = 155 °C	$I_{F(AV)}$	1.0	V
Maximum Non-Repetitive Peak Surge Current (Surge Applied at Rate Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	40	A
Maximum Instantaneous Forward Voltage (I_F = 1.0 A, T_J = 25 °C)	V_F	0.875	V
(I_F = 1.0 A, T_J = 150 °C)		0.71	
Maximum Instantaneous Reverse Current (Note 1) (Rated dc Voltage, T_J = 25 °C)	I_R	2.0	µA
(Rated dc Voltage, T_J = 150 °C)	$I_{R(H)}$	50	
Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	216	°C/W
Maximum Reverse Recovery Time (I_F=1.0A, di/dt = 50A/µs)	Trr	35	ns
Operating Junction Temperature Range	T_J	- 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 (MURA120)

FIG.1 - CURRENT DERATING, LEAD

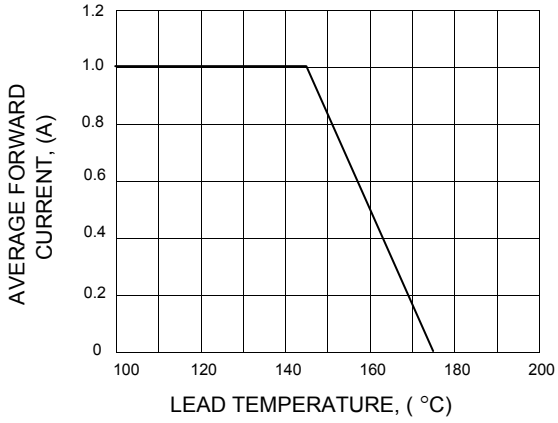


FIG.2 - MAXIMUM JUNCTION CAPACITANCE

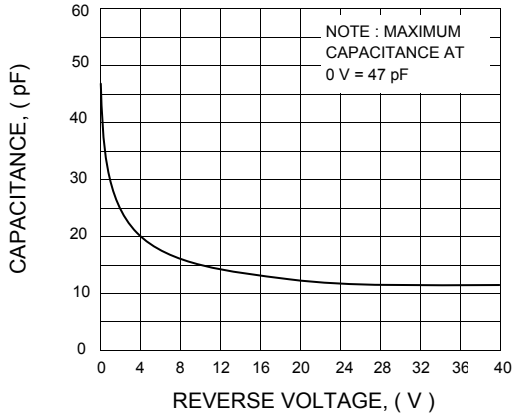


FIG.3 - MAXIMUM FORWARD VOLTAGE

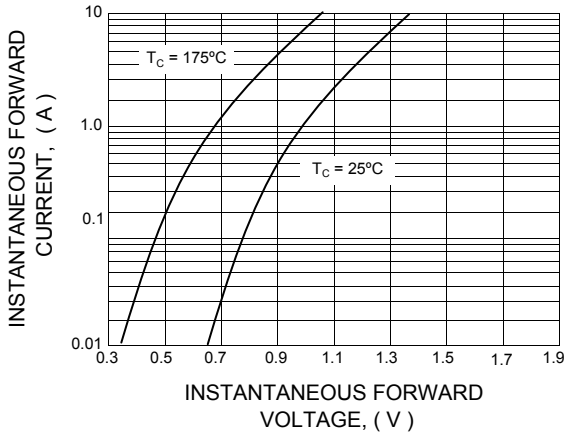


FIG. 4 - MAXIMUM REVERSE CURRENT

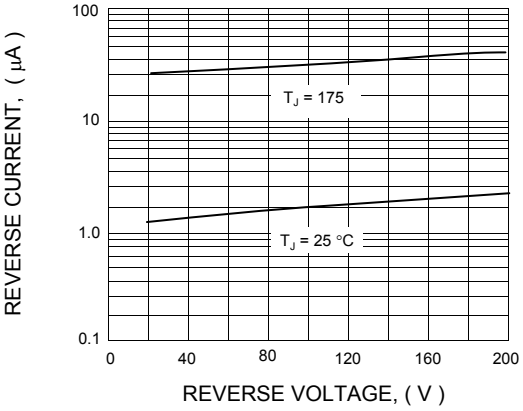


FIG. 5 – POWER DISSIPATION