

MURA105, MURA110

SURFACE MOUNT ULTRA FAST RECTIFIERS

PRV : 50 - 100 Volts
Io : 1.0 Amperes

FEATURES :

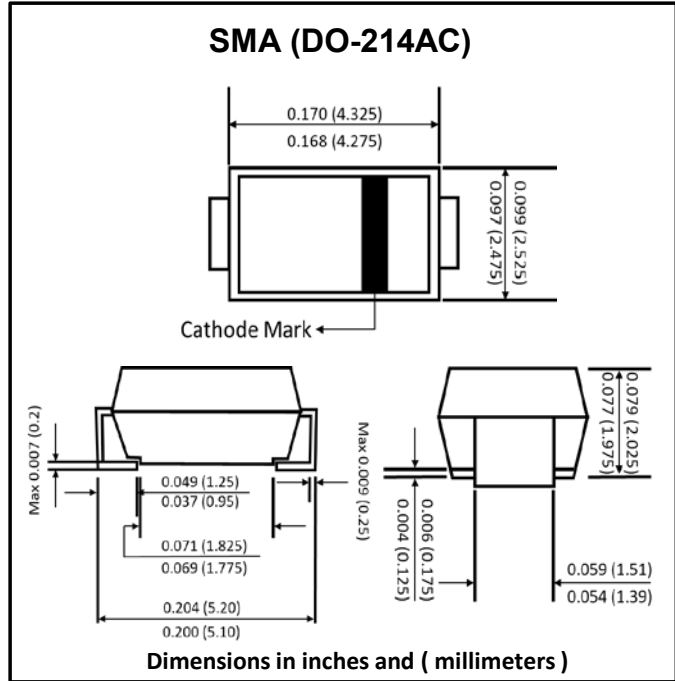
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Super fast recovery time
- * Pb / RoHS Free

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

MARKING :

- * MURA105 "U4A"
- * MURA110 "U4B"



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	MURA105	MURA110	UNIT
Maximum Peak Repetitive Reverse Voltage	VRRM	50	100	V
Maximum Working Peak Reverse Voltage	VRWM	50	100	V
Maximum DC Blocking Voltage	VDC	50	100	V
Maximum Average Rectified Forward Current	IF(AV)	1.0 (T _L = 155 °C) 2.0 (T _L = 135 °C)		V
Maximum Non-Repetitive Peak Surge Current (Surge Applied at Rate Load Conditions Halfwave, Single Phase, 60 Hz)	IFSM	50		A
Maximum Instantaneous Forward Voltage at I _F = 1.0 A (Note 1)	V _F	0.875 (T _J = 25°C) 0.66 (T _J = 150°C)		V
Maximum Instantaneous Reverse Current (Note 1) (Rated dc Voltage)	IR IR(H)	2.0 (T _J = 25°C) 50 (T _J = 150°C)		μA
Thermal Resistance, Junction to Lead (Note 2)	R _{θJL}	24		°C/W
Thermal Resistance, Junction to Ambient (Note 2)	R _{θJA}	216		°C/W
Maximum Reverse Recovery Time (I _F =1.0A, di/dt = 50A/μs)	T _{rr}	30		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.



PACKING INFORMATION

Case Type	Pack	Packaging	Quantity per Box (Pcs.)	Net weight per unit (Kgs.)	Gross weight per unit (Kgs.)	Quantity per Carton (Pcs.)	Net weight per carton (Kgs.)	Gross weight per carton (Kgs.)
SMA(DO-214AC)	R	REEL	5,000	0.34	0.65	25,000	1.68	3.55

RATING AND CHARACTERISTIC CURVES (MURA105, MURA110)

FIG.1 - CURRENT DERATING, LEAD

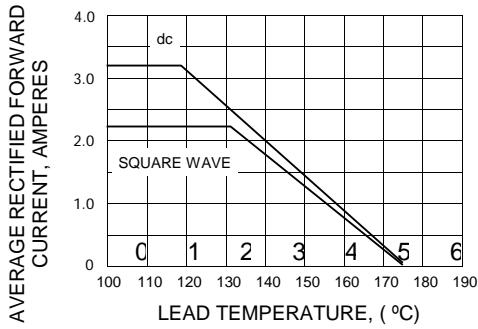


FIG.2 - MAXIMUM CAPACITANCE

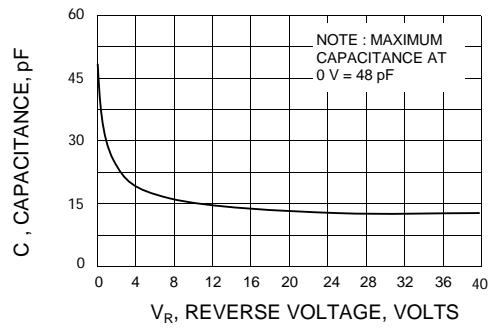


FIG.3 - MAXIMUM INSTANTANEOUS FORWARD VOLTAGE

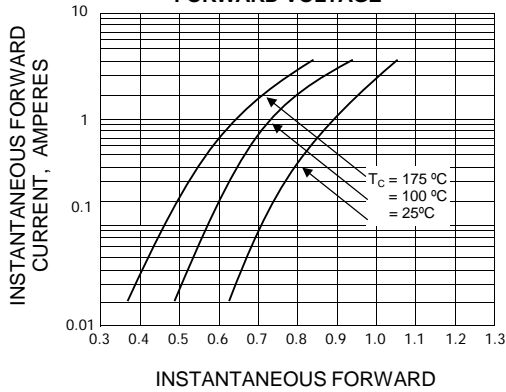


FIG.4 - MAXIMUM REVERSE CURRENT

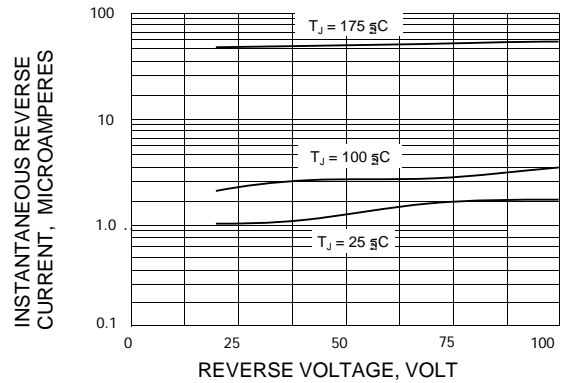


FIG.5 - POWER DISSIPATION

