

MURS220T3

PRV : 200 Volts
Io : 2.0 Ampere

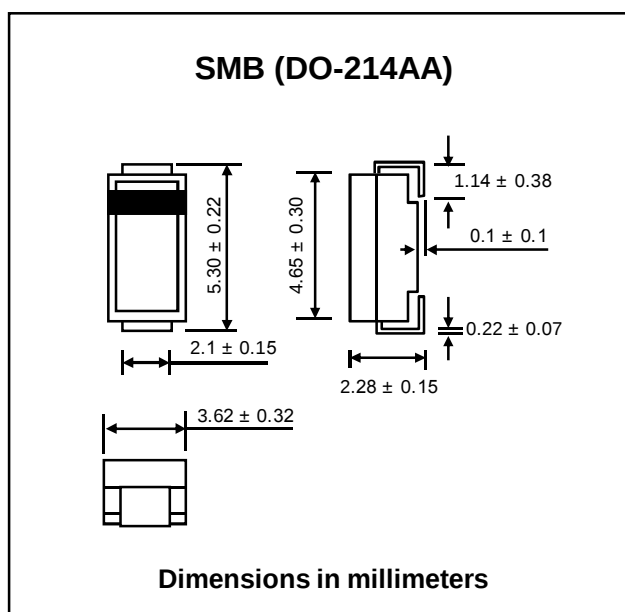
FEATURES :

- * 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 : SMB Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.093 gram

SURFACE MOUNT ULTRA FAST 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 Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Maximum Working Reverse Voltage	V_{RWM}	200	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Rectified Average Forward Current $T_L = 145\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	2.0	A
Maximum Peak Forward Surge Current (Surge applied at rated load conditions, half wave, single phase)	I_{FSM}	40	A
Maximum Instantaneous Forward Voltage at $I_F = 2.0\text{ A}$ (Note 1)	V_F	0.95	V
Maximum Instantaneous Reverse Current at (Rated DC Voltage, $T_J = 25\text{ }^{\circ}\text{C}$) (Rated DC Voltage, $T_J = 150\text{ }^{\circ}\text{C}$)	I_R	2.0	μA
	$I_{R(H)}$	50	
Maximum Reverse Recovery Time (Note 2)	T_{rr}	25	ns
Thermal Resistance - Junction to Lead	$R_{\theta JL}$	13	$^{\circ}\text{C/W}$
Junction Temperature Range	T_J	- 65 to + 175	$^{\circ}\text{C}$

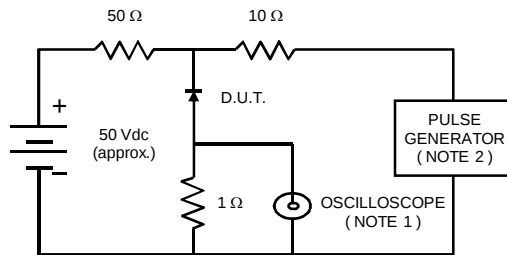
Notes :

(1) Pulse Test : Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$.

(2) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$; I_R to 0.25 A

RATING AND CHARACTERISTIC CURVES (MURS220T3)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise Time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

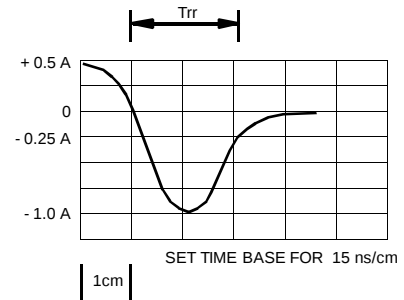


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

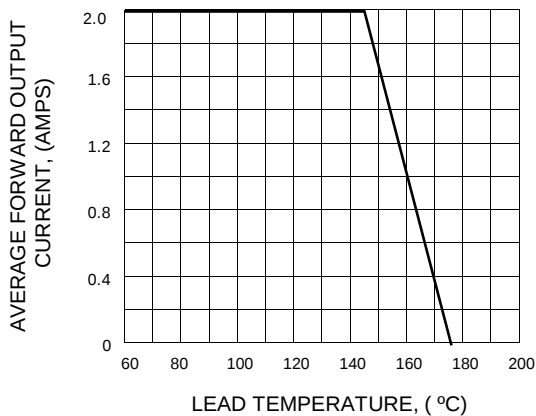


FIG.3 - POWER DISSIPATION

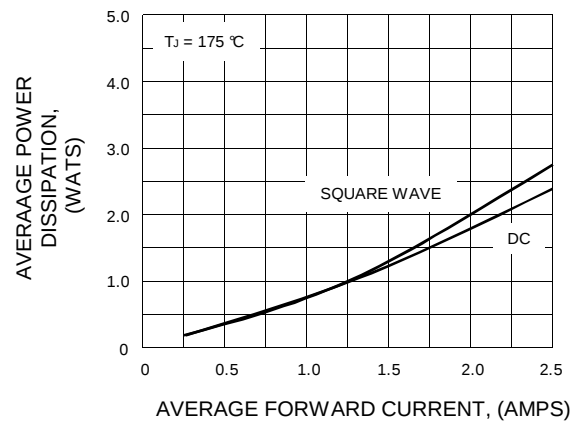


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

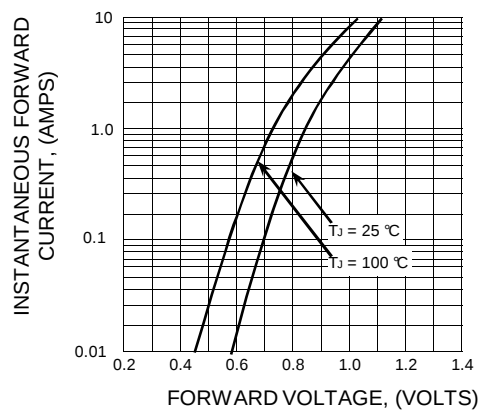


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

