

MURS320T3

PRV : 200 Volts

Io : 3.0 Ampere

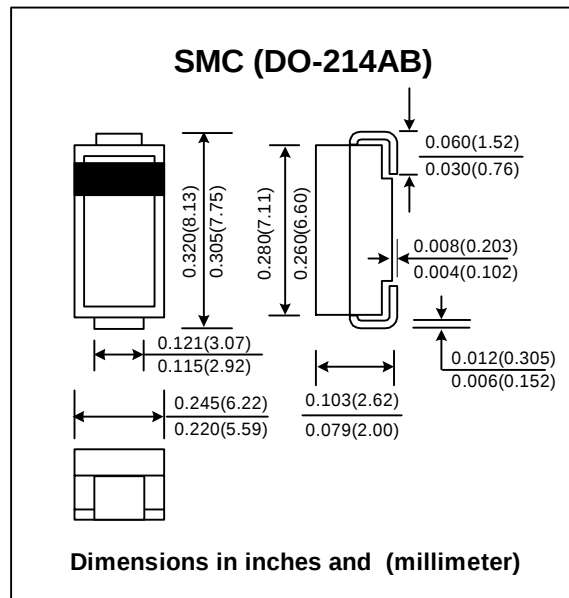
FEATURES :

- * 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 : SMC Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.21 gram

SURFACE MOUNT ULTRAFAST POWER 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%.

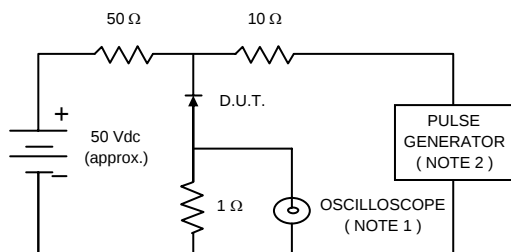
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	200	V
Maximum Working Reverse Voltage	V _{RWM}	200	V
Maximum DC Blocking Voltage	V _{DC}	200	V
Maximum Average Forward Current	I _{F(AV)}	3.0 (T _L = 140°C) 4.0 (T _L = 130°C)	A
Maximum Peak Forward Surge Current (Surge applied at rated load conditions, half wave, single phase)	I _{FSM}	75	A
Maximum Instantaneous Forward Voltage (Note 1) (at I _F = 3 A, T _J = 25°C) (at I _F = 4 A, T _J = 25°C)	V _F	0.875 0.890	V
Maximum Reverse Current at T _J = 25 °C	I _R	5.0	μA
Rated DC Blocking Voltage T _J = 150 °C	I _{R(H)}	150	μA
Maximum Reverse Recovery Time (Note 2)	T _{rr}	25	ns
Thermal Resistance (Junction to Lead)	R _{θJL}	11	°C/W
Junction Temperature Range	T _J	- 65 to + 175	°C

Notes :

- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle ≤ 2.0%
- (2) Reverse Recovery Test Conditions : I_F = 0.5A, I_R = 1A ; I_{rr} = 0.25 A

RATING AND CHARACTERISTIC CURVES (MURS320T3)

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.

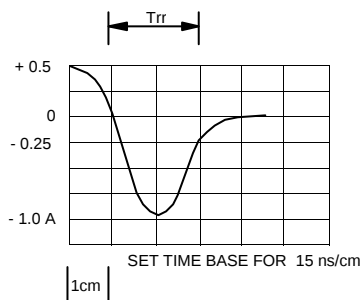


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

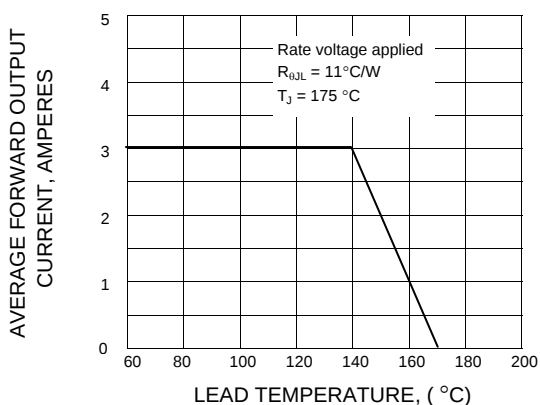


FIG.3 - POWER DISSIPATION

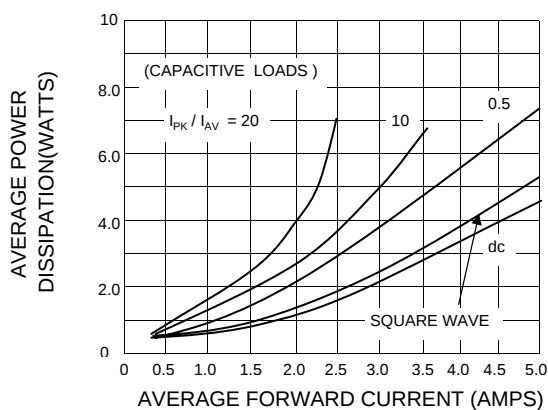


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

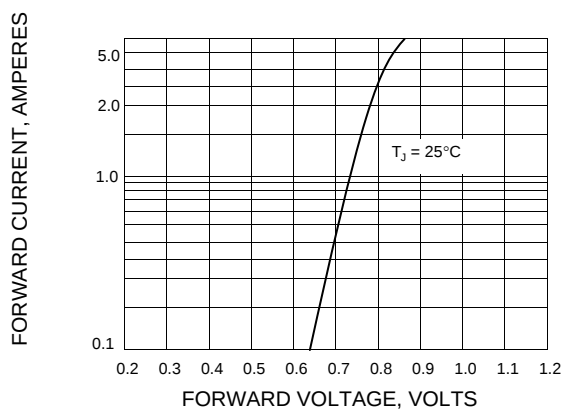


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

