

MURS320T3

SURFACE MOUNT ULTRAFAST POWER RECTIFIER

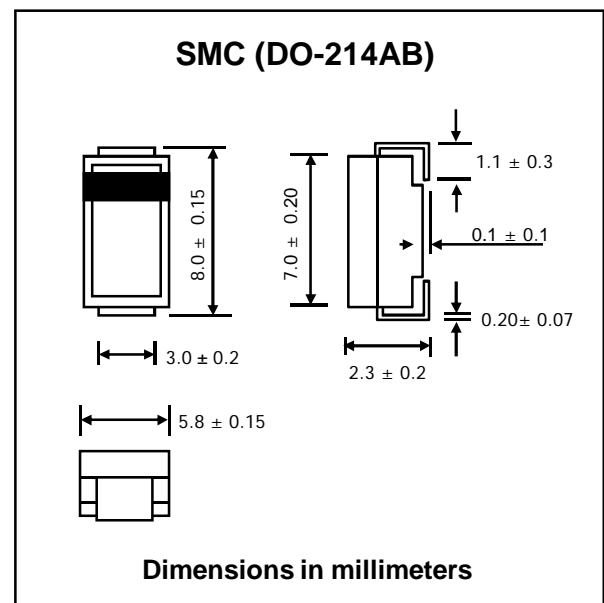
PRV : 200 Volts
Io : 3.0 Ampere

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



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%.

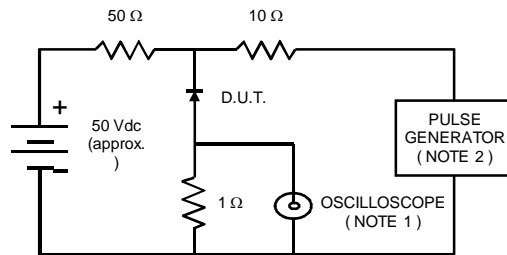
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	200	V
Maximum Working Reverse Voltage	VRWM	200	V
Maximum DC Blocking Voltage	VDC	200	V
Maximum Average Forward Current	IF(AV)	3.0 (TL = 140°C) 4.0 (TL = 130°C)	A
Maximum Peak Forward Surge Current (Surge applied at rated load conditions, half wave, single phase)	IFSM	75	A
Maximum Instantaneous Forward Voltage (Note 1) (at IF = 3 A, TJ =25°C) (at IF = 4 A, TJ =25 °C)	VF	0.875 0.890	V
Maximum Reverse Current at TJ = 25 °C	IR	5.0	μA
Rated DC Blocking Voltage TJ = 150 °C	IR(H)	150	μA
Maximum Reverse Recovery Time (Note 2)	Trr	25	ns
Thermal Resistance (Junction to Lead)	RθJL	11	°C/W
Junction Temperature Range	TJ	- 65 to + 175	°C

Notes :

- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle ≤ 2.0%
- (2) Reverse Recovery Test Conditions : IF = 0.5A, IR = 1A ; Irr = 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.

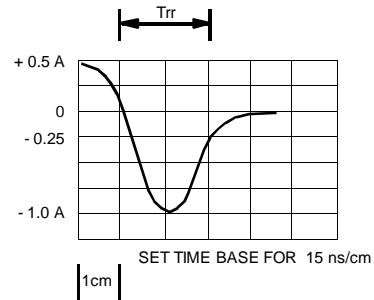


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

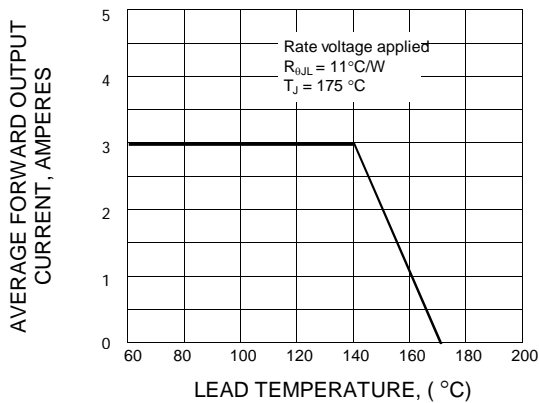


FIG.3 - POWER DISSIPATION

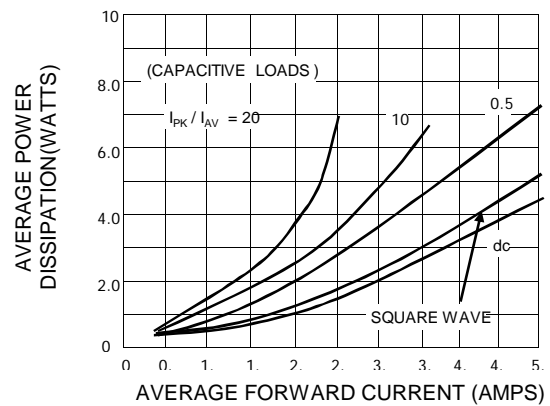


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

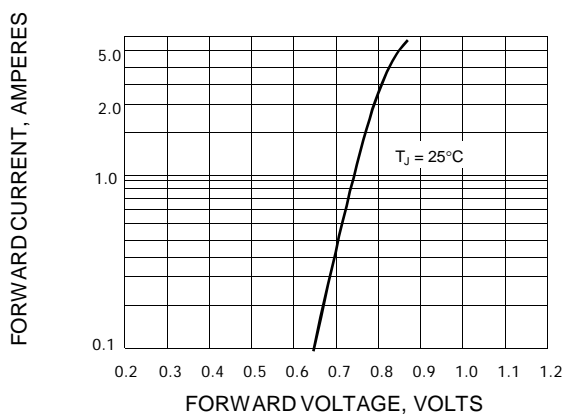


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

