

MURS120

SURFACE MOUNT ULTRA FAST RECTIFIERS

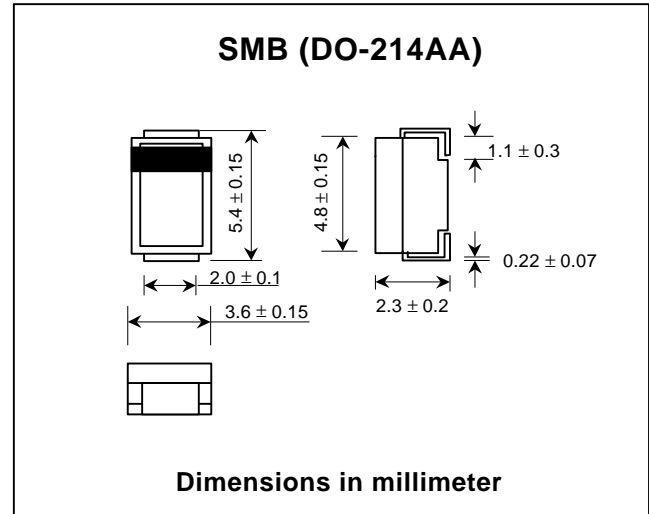
PRV : 200 Volts
Io : 1.0 Ampere

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



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%.

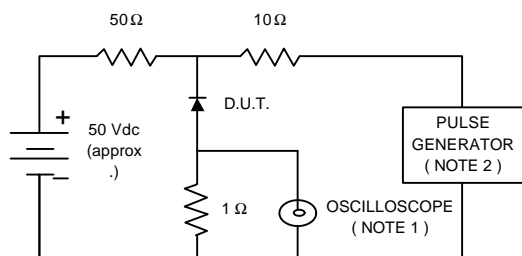
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	200	V
Maximum Working Reverse Voltage	VRWM	200	V
Maximum DC Blocking Voltage	VDC	200	V
Maximum Average Forward Current $T_L = 155\text{ }^\circ\text{C}$	IF(AV)	1.0	A
Maximum Peak Forward Surge Current (Surge applied at rated load conditions, half wave, single phase)	IFSM	40	A
Maximum Forward Voltage at $I_F = 1\text{ A}$ (Note 1)	VF	0.875	V
Maximum Reverse Current at $T_J = 25\text{ }^\circ\text{C}$	IR	2.0	μA
Rated DC Blocking Voltage $T_J = 150\text{ }^\circ\text{C}$	IR(H)	50	μA
Maximum Reverse Recovery Time (Note 2)	Trr	30	ns
Junction Temperature Range	TJ	- 65 to + 175	$^\circ\text{C}$
Storage Temperature Range	TSTG	- 65 to + 175	$^\circ\text{C}$

Notes :

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

RATING AND CHARACTERISTIC CURVES (MURS120)

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.

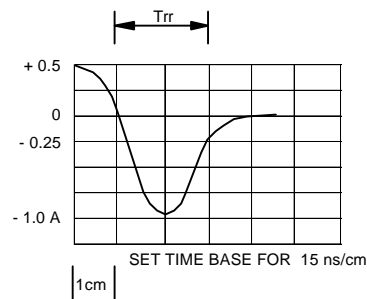


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

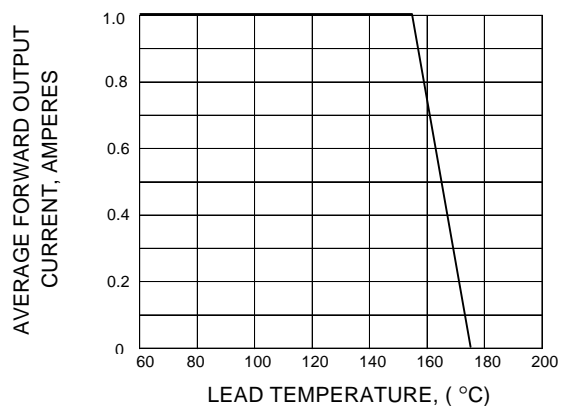


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

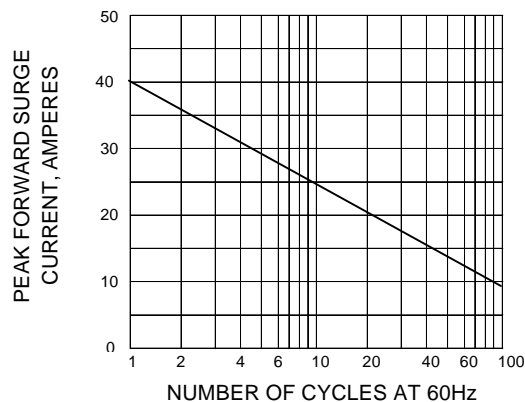


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

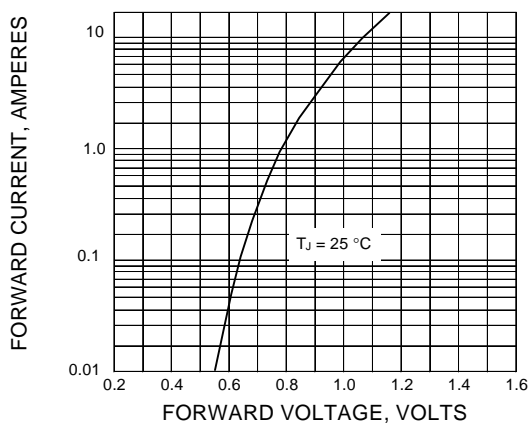


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

