

ULTRAFAST RECTIFIER

VOLTAGE RANGE 200 to 600 Volts CURRENT 1.0 Ampere

FEATURES

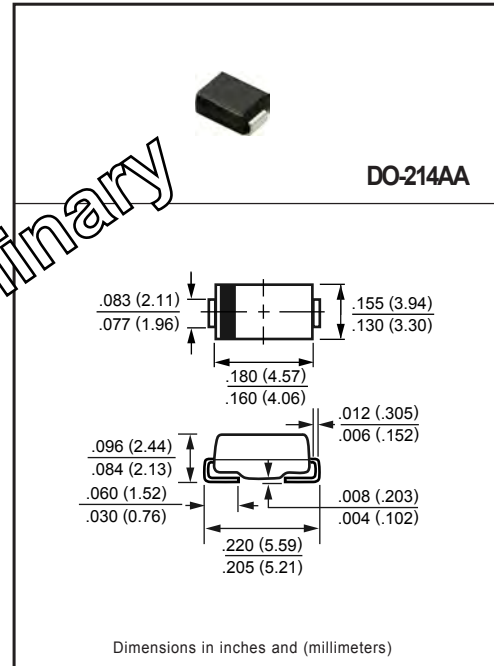
- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Ultrafast switching speed
- * High surge capability
- * Good for switching mode circuit

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.057 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.



MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	MURS120	MURS140	MURS160	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	Volts
Maximum RMS Voltage	V _{RMS}	140	280	420	Volts
Maximum DC Blocking Voltage	V _{DC}	200	400	600	Volts
Maximum Average Forward Rectified Current at T _A =55°C	I _O	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	35			Amps
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150			°C

ELECTRICAL CHARACTERISTICS (@T_A=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MURS120	MURS140	MURS160	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V _F	0.875	1.25		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _J = 25°C	2.0	5.0		uAmps
	@T _J = 150°C	50	150		
Maximum Reverse Recovery Time (Note 1)	t _{rr}	25	50		nSec

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)"

2010-02
REV: 0

RATING AND CHARACTERISTICS CURVES (MURS120 THRU MURS160)

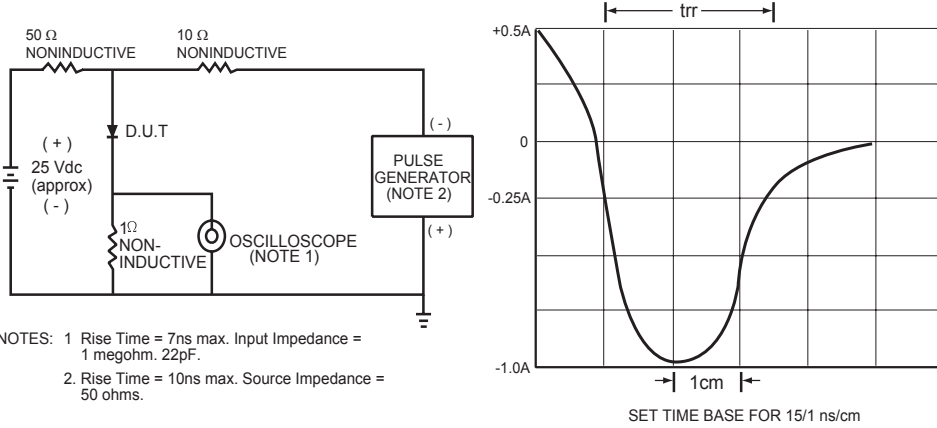


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

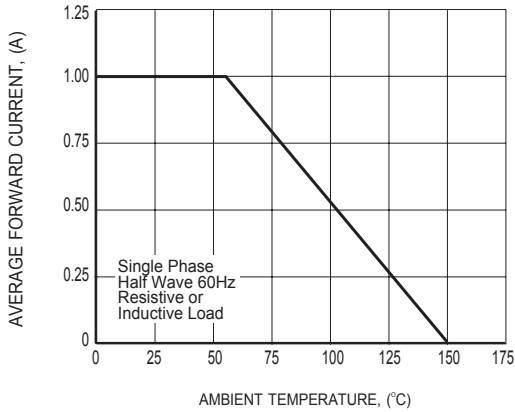


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

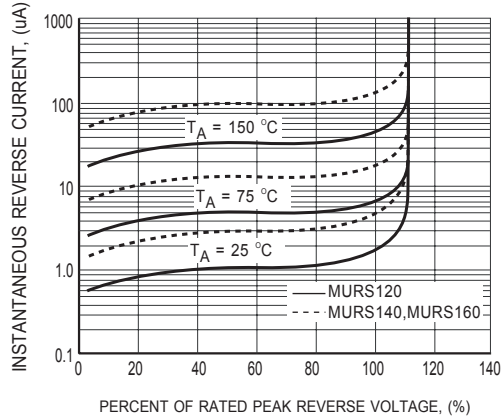


FIG.3 TYPICAL REVERSE CHARACTERISTICS

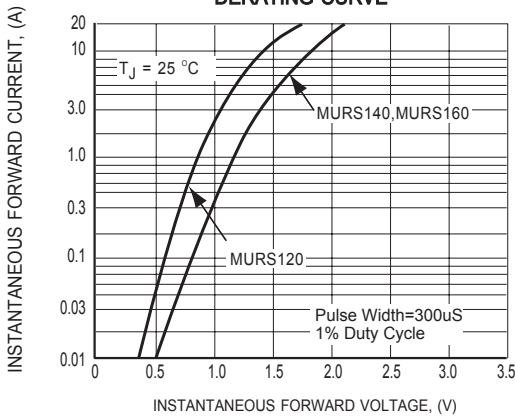


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

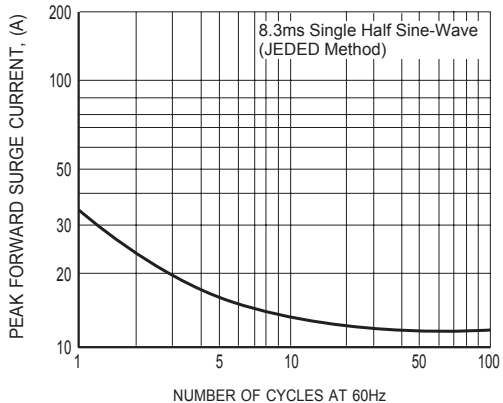
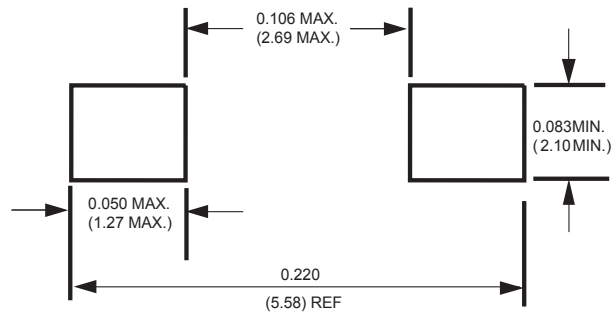


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

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