

Plastic Epitaxial Fast Recovery Rectifiers
VOLTAGE RANGE 200 to 1000 Volts CURRENT 4.0 Amperes

FEATURES

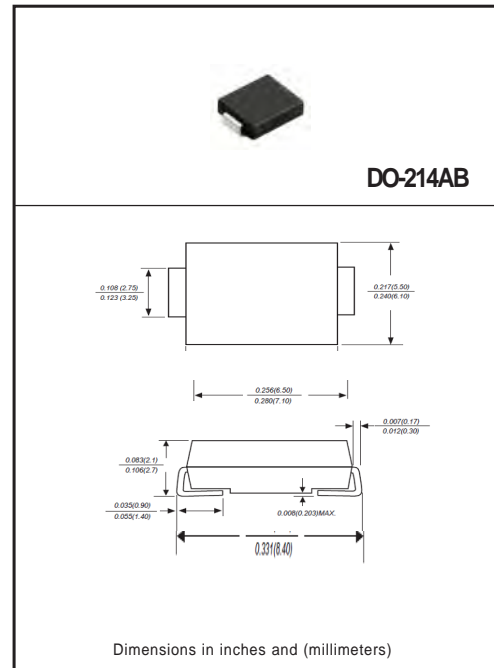
- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Ultrafast switching speed
- * High surge capability
- * Good for switching mode circuit

MECHANICAL DATA

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

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 (@ T_A=25 °C unless otherwise noted)

RATINGS	SYMBOL	MURS420	MURS440	MURS460	MURS480	MURS4100	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T _A =55°C	I _O	4.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100					Amps
Current Squared Time	i ² t	41.5					A ² S
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150					°C

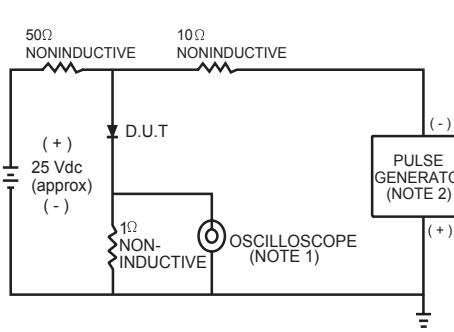
ELECTRICAL CHARACTERISTICS(@T_A=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MURS420	MURS440	MURS460	MURS480	MURS4100	UNITS
Maximum Instantaneous Forward Voltage at 4.0A DC	V _F	0.875	1.4		1.7		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T _A = 25°C	10					uAmps
	@ T _A = 150°C	200					
Maximum Reverse Recovery Time (Note 1)	t _{rr}	35	50		75		nSec

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
2. "ROHS compliant"
3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

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REV: A

RATING AND CHARACTERISTICS CURVES (MURS420 THRU MURS4100)



NOTES: 1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.
 2. Rise Time = 10ns max. Source Impedance = 50 ohms.

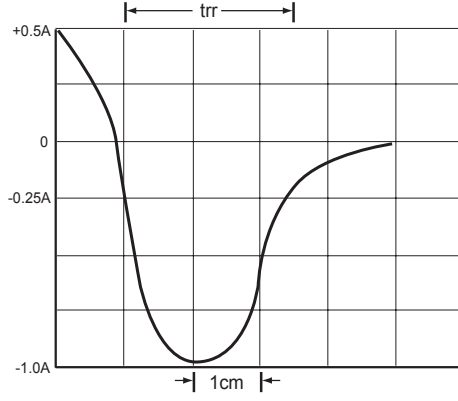


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

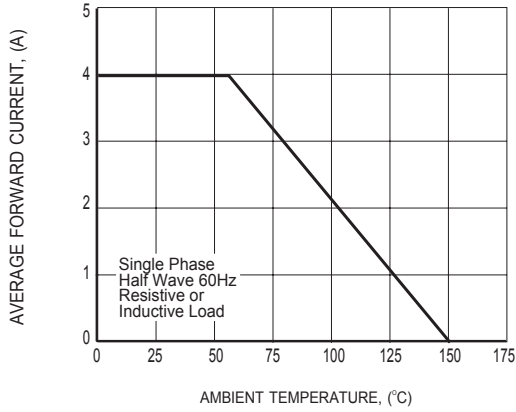


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

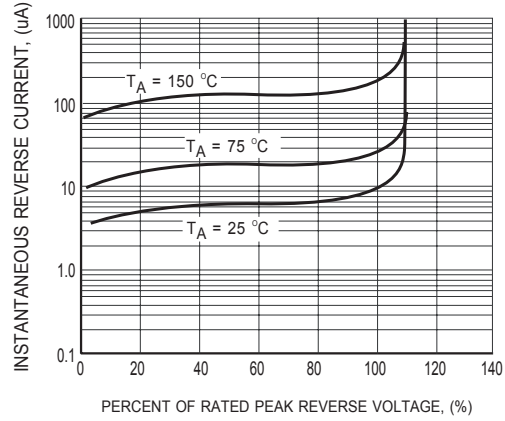


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

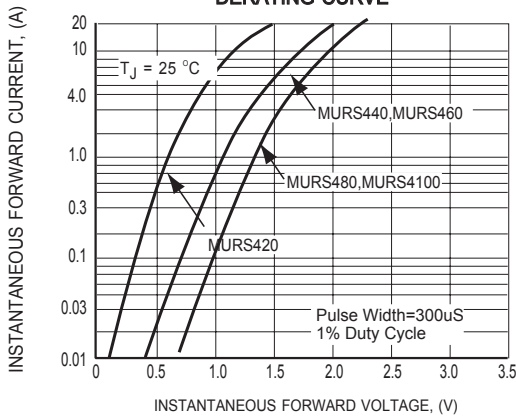


FIG.4 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

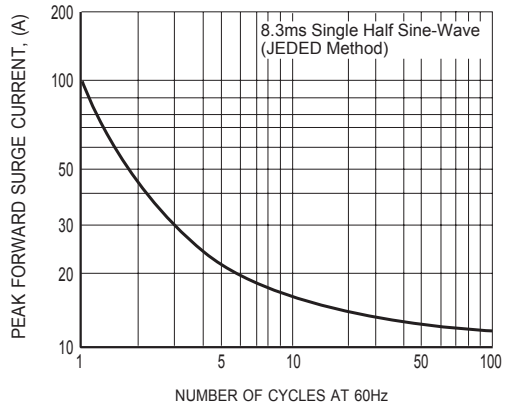
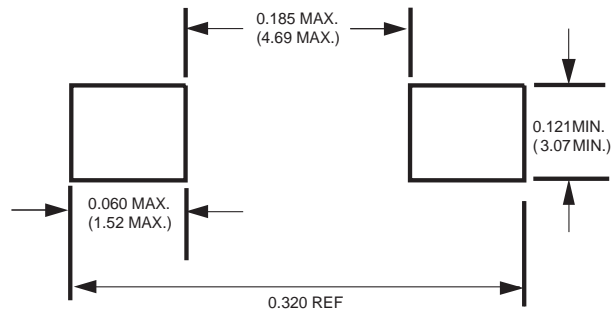


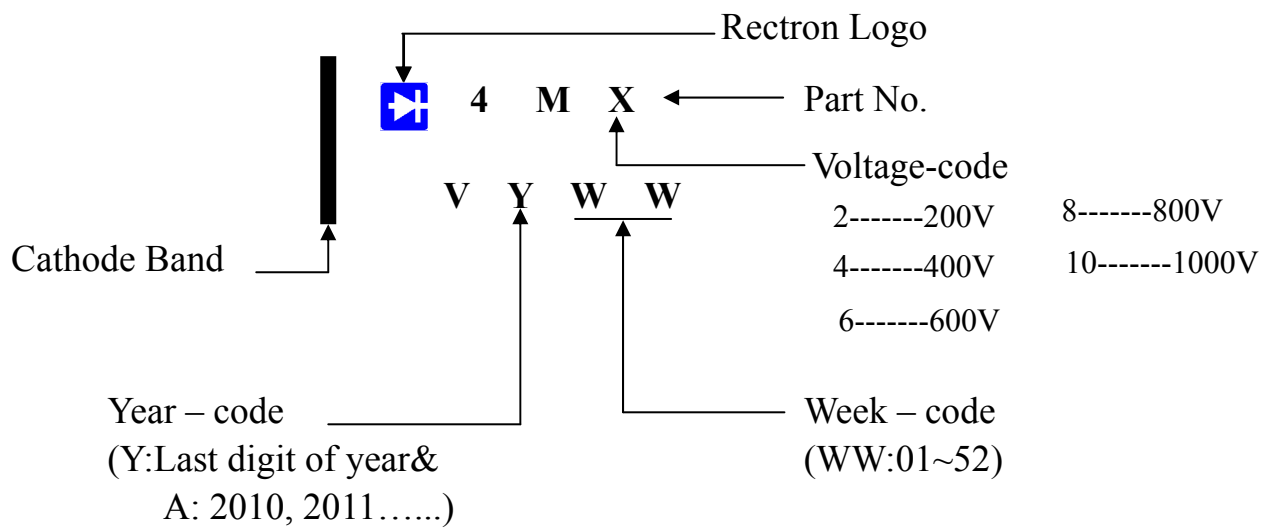
FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMC	-W/-T	3,000	3,000	---	---	330	360*355*360	24,000	11.50

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