RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

MUR550

ULTRAFAST RECTIFIER

VOLTAGE RANGE 500 Volts CURRENT 5.0 Amperes

FEATURES

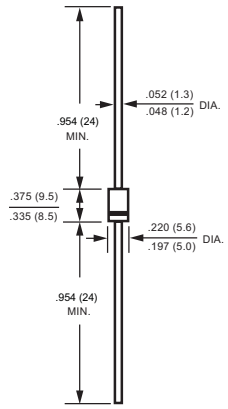
* High reliability
* Low leakage
* Low forward voltage
* High current capability
* Ultrafast switching speed
* High surge capability
* Good for switching mode circuit

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* P/N suffix V means AEC-Q101 qualified, e.g:MUR550V
* P/N suffix V means Halogen-free



DO-201AD



Dimensions in inches and (millimeters)

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	MUR550	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	500	Volts
Maximum RMS Voltage	V_{RMS}	350	Volts
Maximum DC Blocking Voltage	V_{DC}	500	Volts
Maximum Average Forward Rectified Current at T_A=55°C	I_O	5.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	85	Amps
Current Squared Time	I^2t	30	A^2S
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	°C

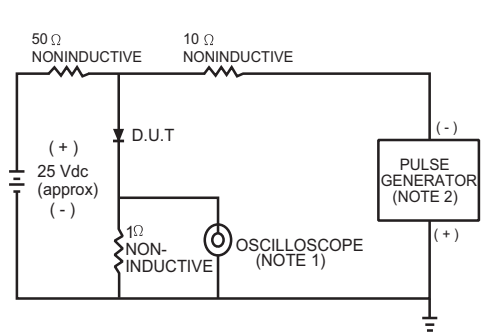
ELECTRICAL CHARACTERISTICS(@T_A=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	MUR550	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC		V_F	1.15	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	5	uAmps
	@T_A = 150°C		800	
Maximum Reverse Recovery Time (Note 1)		trr	95	nSec

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

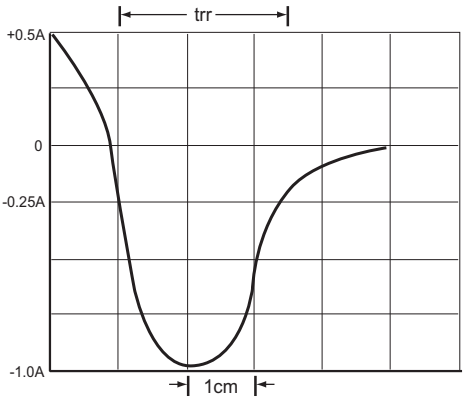
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REV:B

RATING AND CHARACTERISTICS CURVES (MUR550)



NOTES: 1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.

2. Rise Time = 10ns max. Source Impedance = 50 ohms.



SET TIME BASE FOR 38/1 ns/cm

FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

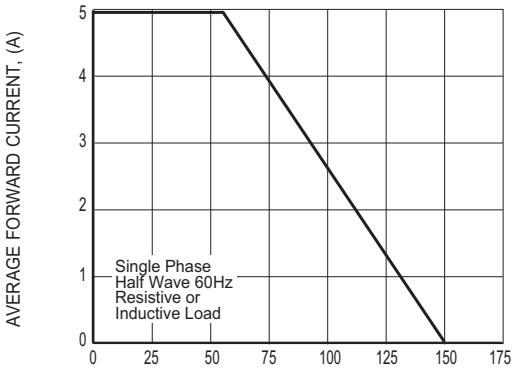


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

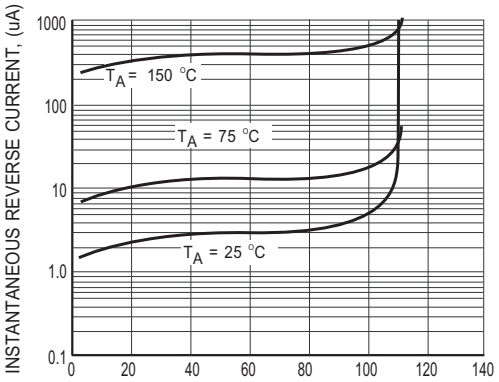


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

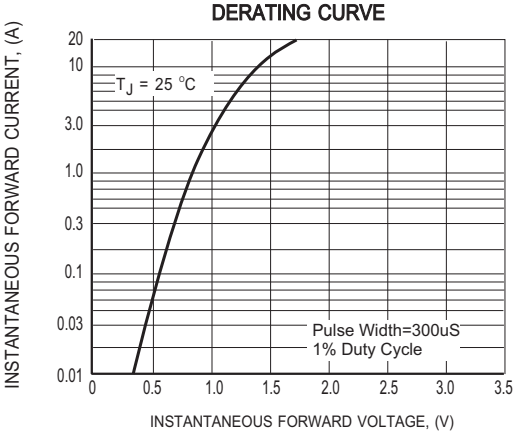


FIG. MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

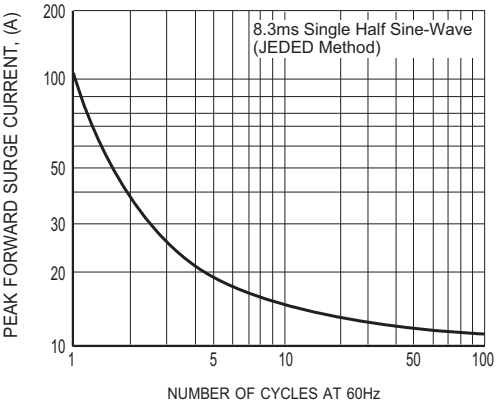
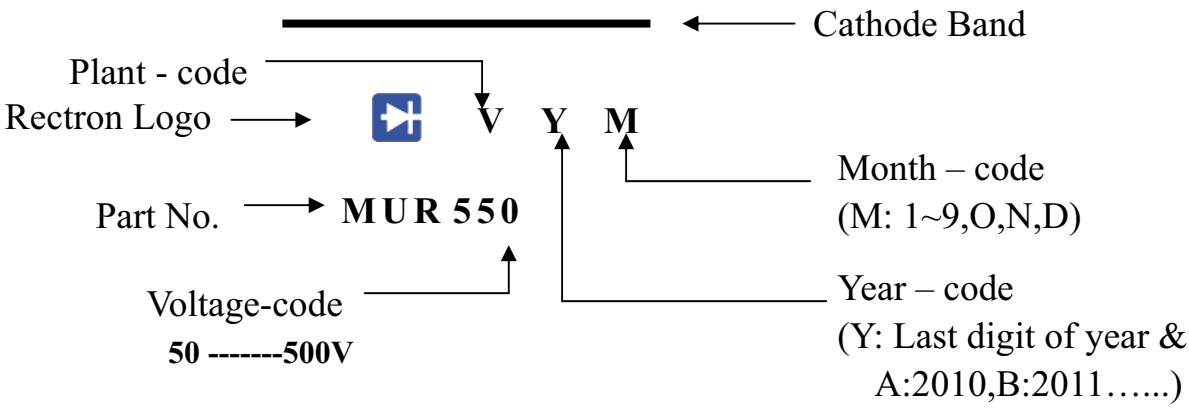


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking on the body



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-201	-B	500	300*73*40	347*320*271	12,000	15.9

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)
DO-201	-T	1,200	1,200	5.0	52	330	355*350*335	4,800	9.10

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
DO-201	-F	600	9.5	52	255*73*100	400*268*225	6,000	9.9

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