

**SILICON RECTIFIER**

**VOLTAGE RANGE 1000 Volts CURRENT 3.0 Ampere**

**FEATURES**

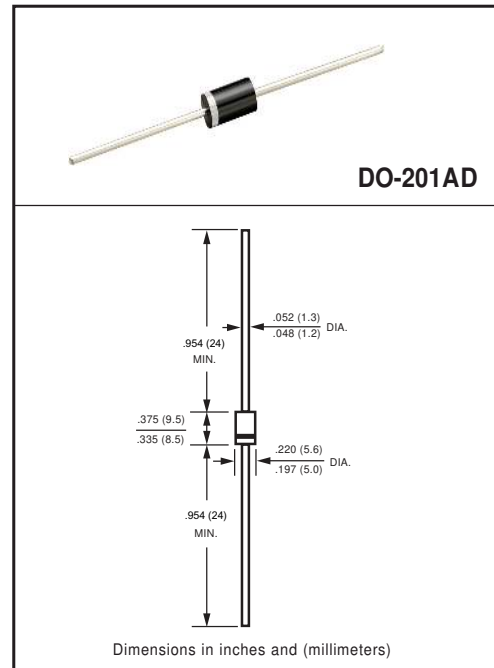
- \* Low cost
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 1.2 grams

**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)**

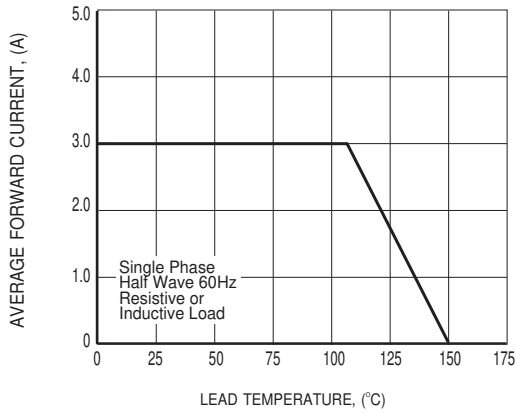
RATINGS	SYMBOL	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	1000							Volts
Maximum RMS Voltage	V <sub>RMS</sub>	700							Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	1000							Volts
Maximum Average Forward Rectified Current at T <sub>L</sub> = 105 °C	I <sub>O</sub>	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200							Amps
Typical Current Squared Time	i <sup>2</sup> T	166							A <sup>2</sup> S
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	20							°C/W
	R <sub>θJL</sub>	5.0							
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	30							pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

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

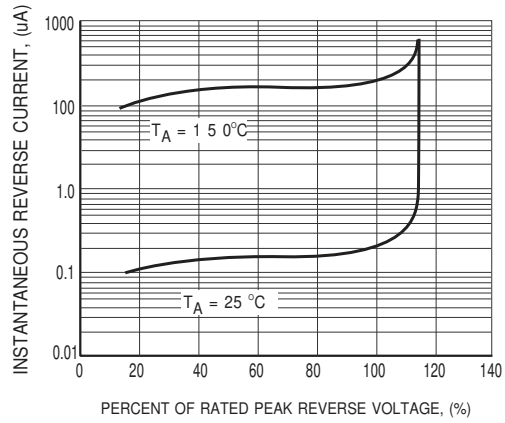
CHARACTERISTICS	SYMBOL	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC	V <sub>F</sub>	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25 °C	0.2							uAmps
	@T <sub>A</sub> = 1 5 0 °C	200							

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
2. Typical Thermal Resistance : At 9.5mm lead lengths,PCB mounted.

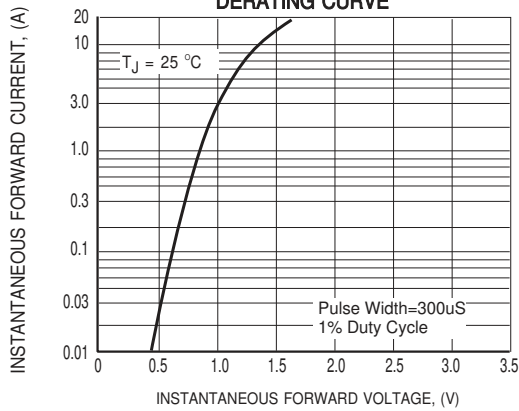
# RATING AND CHARACTERISTIC CURVES (1N5400 THRU 1N5408)



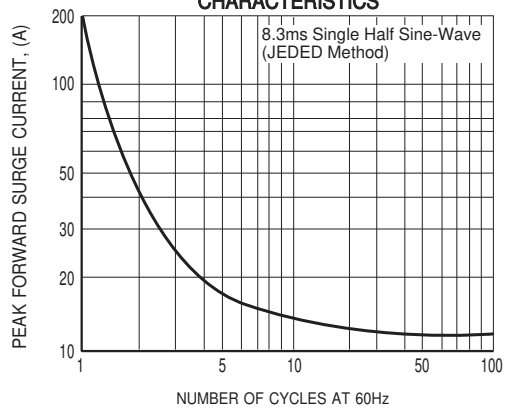
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



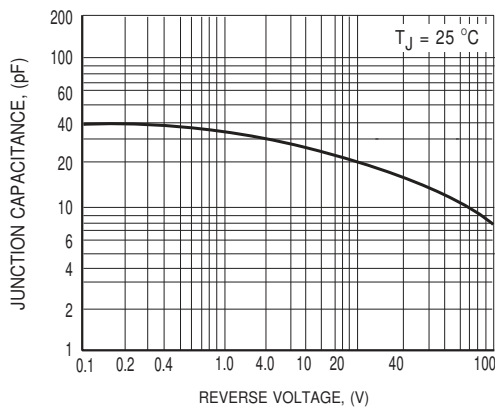
**FIG.2 MAXIMUM REVERSE CHARACTERISTICS**



**FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS**

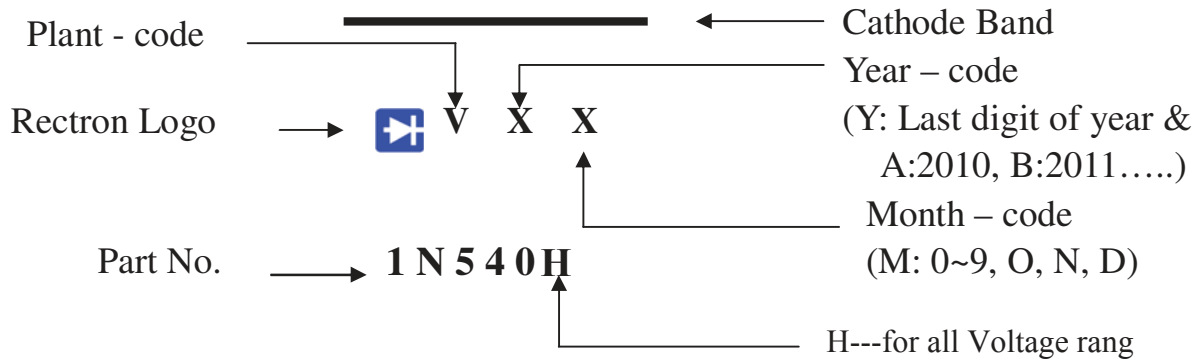


**FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.5 TYPICAL JUNCTION CAPACITANCE**

## Marking Description



## 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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