

SILICON RECTIFIER

VOLTAGE RANGE 1300 to 1500 Volts CURRENT 3.0 Amperes

FEATURES

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

MECHANICAL DATA

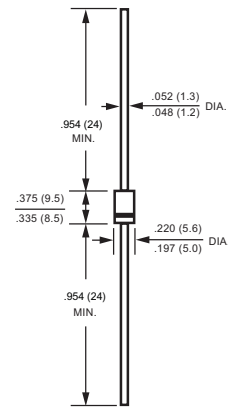
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any

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%.



DO-201AD



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	1N5413	1N5414	1N5415	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	1300	1400	1500	Volts
Maximum RMS Voltage	VRMS	910	980	1050	Volts
Maximum DC Blocking Voltage	VDC	1300	1400	1500	Volts
Maximum Average Forward Rectified Current at TA = 75 °C	IO		3.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM		150		Amps
Typical Current Squared Time	I ² T		93.4		A ² S
Typical Thermal Resistance (Note 2)	RθJA		20		°C/W
	RθJL		5.0		
Typical Junction Capacitance (Note 1)	CJ		30		pF
Operating and Storage Temperature Range	TJ, TSTG		-55 to + 175		°C

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

CHARACTERISTICS	SYMBOL	1N5413	1N5414	1N5415	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC	VF		1.1		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TA = 25°C		10		uAmps
	@TA = 150°C		2.0		mAmps

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.

2020-04
REV:B

RATING AND CHARACTERISTICS CURVES (1N5413 THRU 1N5415)

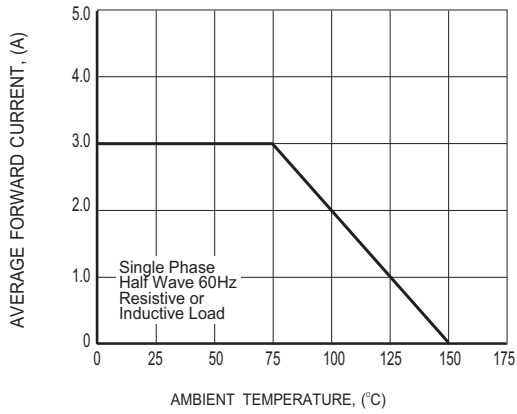


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

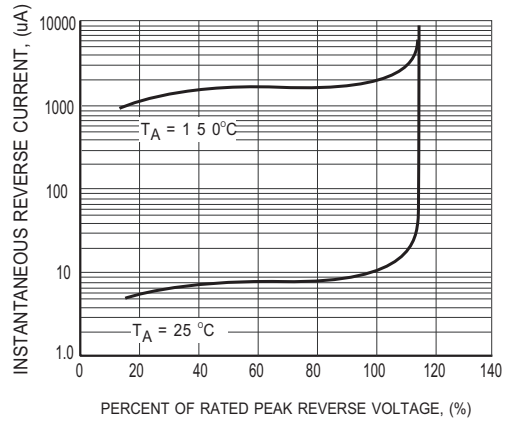


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

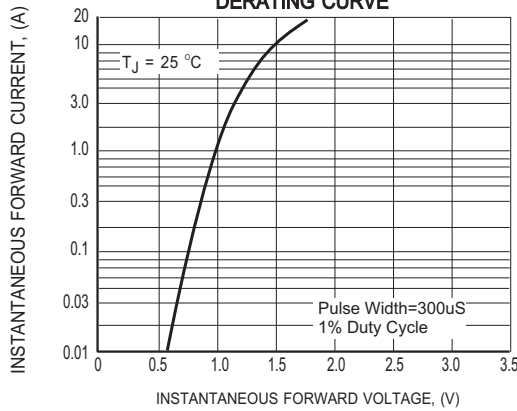


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

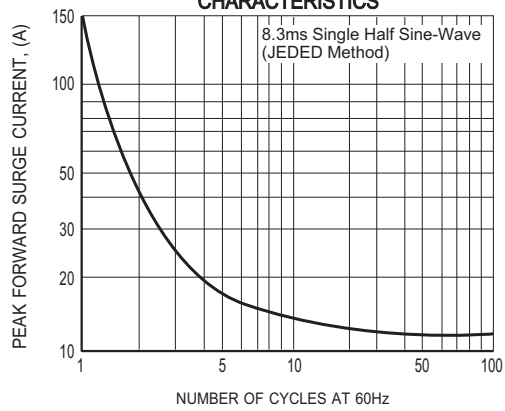


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

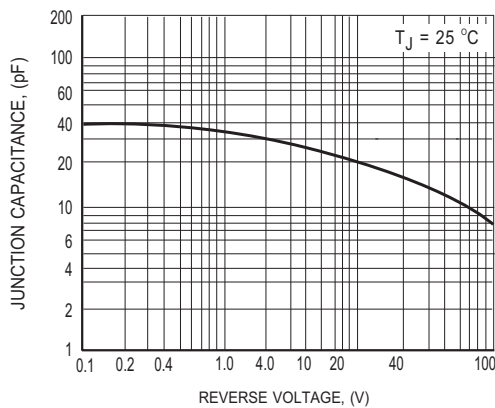
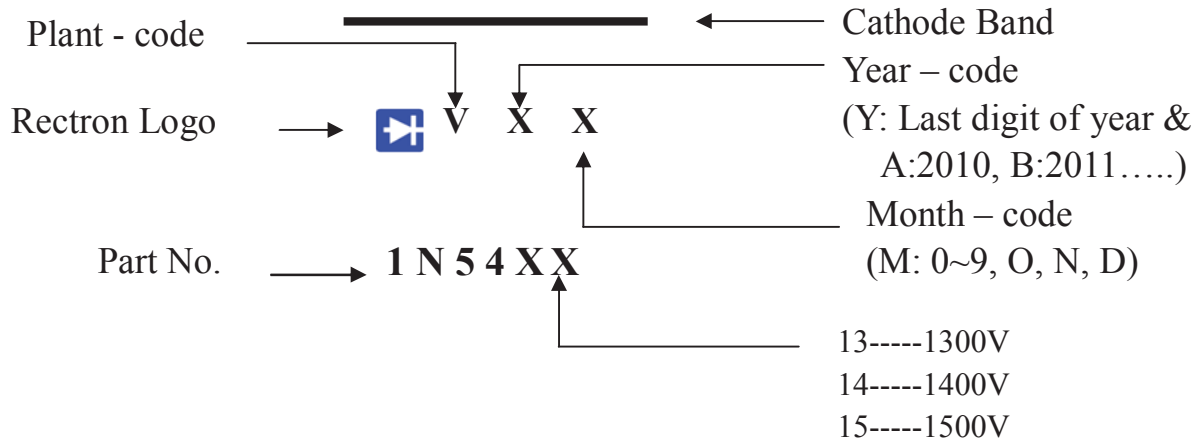


FIG.5 TYPICAL JUNCTION CAPACITANCE

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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