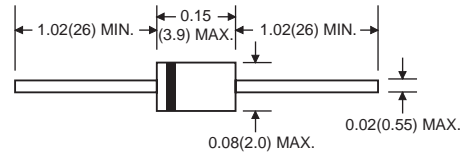


## Features

- ✧ Fast switching speed
- ✧ General purpose rectification
- ✧ Silicon epitaxial planar construction



## Mechanical Data

- ✧ Case: DO-35
- ✧ Leads: Pure tin plated lead free, Solderable per MIL-STD-202, Method 208
- ✧ Polarity: Cathode band
- ✧ Marking: Type number
- ✧ Weight: 0.13 grams (approx.)

Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

### Maximum Ratings

Type Number	Symbol	1N4148	Units
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	V
Reverse Voltage	V <sub>R</sub>	75	V
Peak Forward Surge Current tp=1us	I <sub>FSM</sub>	2	A
Repetitive Peak Forward Current	I <sub>FRM</sub>	500	mA
Forward Current	I <sub>F</sub>	300	mA
Average Forward Current V <sub>R</sub> =0	I <sub>FAV</sub>	150	mA
Power Dissipation l=4mm, T <sub>L</sub> =45 °C	P <sub>V</sub>	440	mW
		500	mW
l=4mm, T <sub>L</sub> ≤ 25 °C			
Junction Ambient l=4mm, T <sub>L</sub> = constant	R <sub>θJA</sub>	350	K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 200	°C

### Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Forward Voltage @ I <sub>F</sub> =10mA	V <sub>F</sub>	-	1.0	V
Peak Reverse Current V <sub>R</sub> =75V V <sub>R</sub> =20V, T <sub>J</sub> =150 °C V <sub>R</sub> =20V	I <sub>R</sub>	-	5	uA
		-	50	uA
		-	25	nA
Breakdown Voltage I <sub>R</sub> =100uA, tp/T=0.01, tp=0.3ms	V <sub>(BR)</sub>	100	-	V
Capacitance V <sub>R</sub> =0, f=1.0MHz, V <sub>HF</sub> =50mV	C <sub>j</sub>	-	4.0	pF
Rectification Efficiency V <sub>HF</sub> =2V, f=100MHz	T <sub>lr</sub>	45	-	%
Reverse Recovery Time I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>R</sub> =1mA I <sub>F</sub> =10mA, V <sub>R</sub> =6V, I <sub>R</sub> =0.1x I <sub>R</sub> , R <sub>L</sub> =100Ω	trr	-	8.0	nS
	trr	-	4.0	nS

## RATINGS AND CHARACTERISTIC CURVES (1N4148)

FIG.1- ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE

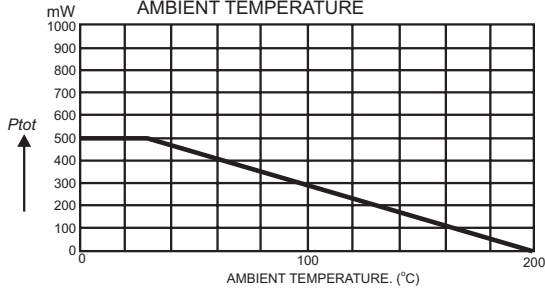


FIG.2- TYPICAL REVERSE CHARACTERISTICS

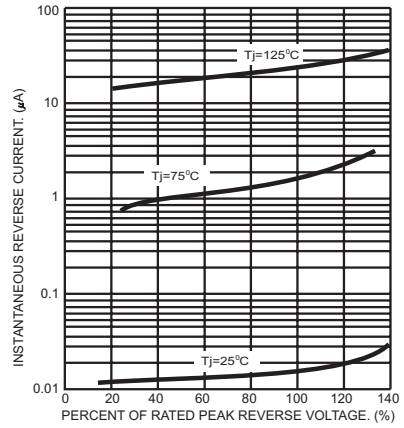


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

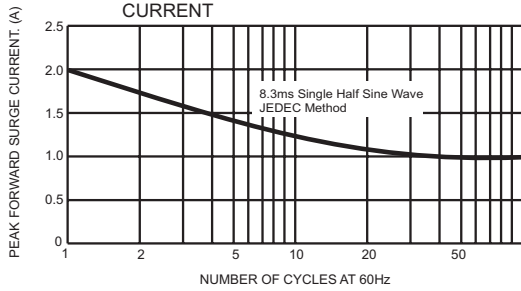


FIG.5- FORWARD CHARACTERISTICS CURVE

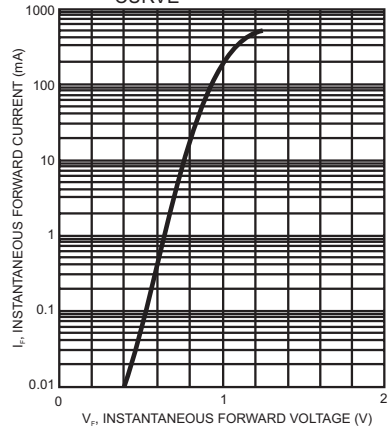


FIG.4- TYPICAL JUNCTION CAPACITANCE

