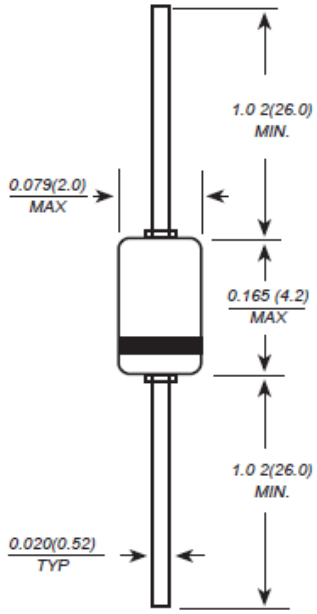
1N4148
Small Signal Switching Diode

DO-35



Dimensions in inches and (millimeters)

◆ Features

» **Silicon epitaxial planar diode**
» **500mw power dissipation**
» **Soldering:**
250℃/10 seconds,0.375”(9.5mm) lead length,
5 lbs. (2.3kg) tension

◆ Mechanical Data

» **Case:** DO-35 glass sealed envelope.
» **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
» **Polarity:** Color band denotes cathode end
» **Weight:** 0.005 ounce, 0.14 grams
» **Standard Package:** Ammopack

◆ Electrical Characteristic

Ratings at 25 C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOL	1N4148	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	VOLTS
Maximum RMS voltage	V_{RMS}	75	VOLTS
Maximum average forward rectified current 0.375”(9.5mm) lead length at TA=25 C	$I_{(AV)}$	150	mAmps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500	mAmps
Maximum instantaneous forward voltage at 10mA	V_F	1.0	Volts
Maximum DC reverse current T_A=25℃ V_R=75V at rated DC blocking voltage T_A=100℃ V_R=20V	I_R	5.0 50	mA
Maximum reverse recovery time(NOTE 1)	t_{rr}	4.0	ns
Typical junction capacitance (NOTE 2)	C_J	4.0	pF
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +200	℃

NOTES:
1.Test condition:I_F=10mA,I_R=10mA,I_{rr}=1mA,V_R=6V,R_L=100W.
2.Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

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◆ Rating And Characteristic Curves

FIG. 1-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

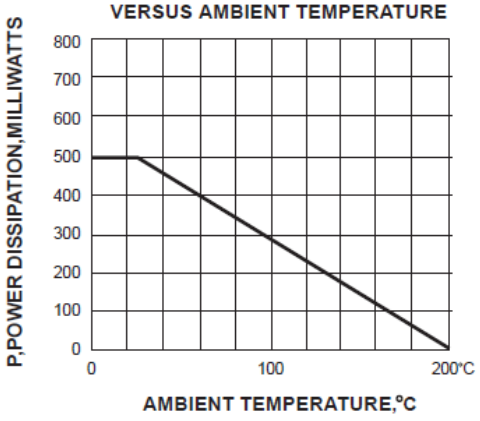


FIG. 2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE (TYPICAL VALUES)

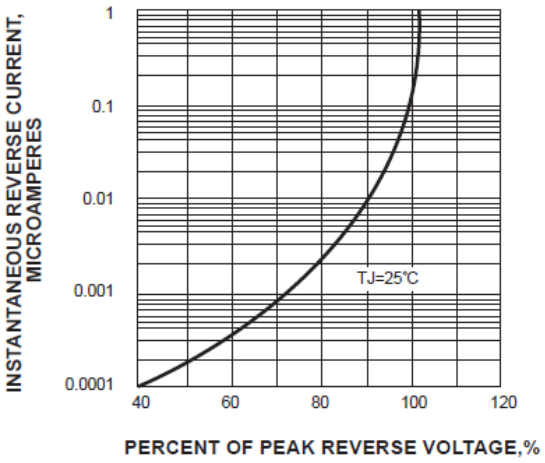


FIG. 3-FORWARD CHARACTERISTICS

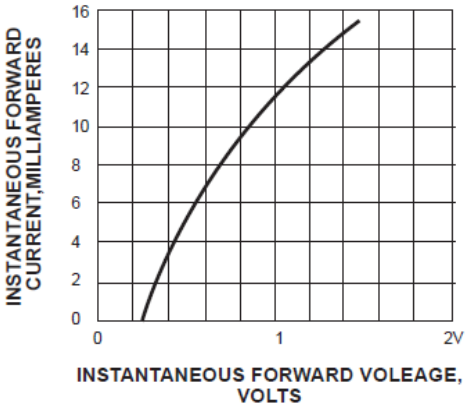


FIG. 4-RELATIVE CAPACTANCE VERSUS REVERSE VOLTAGE

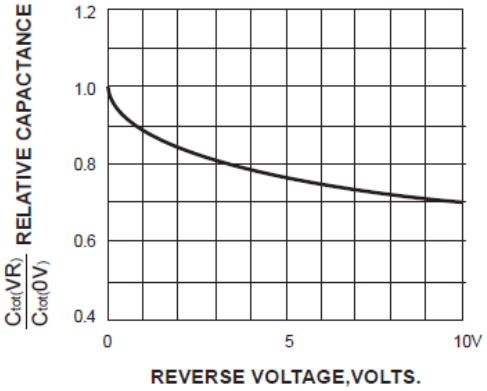
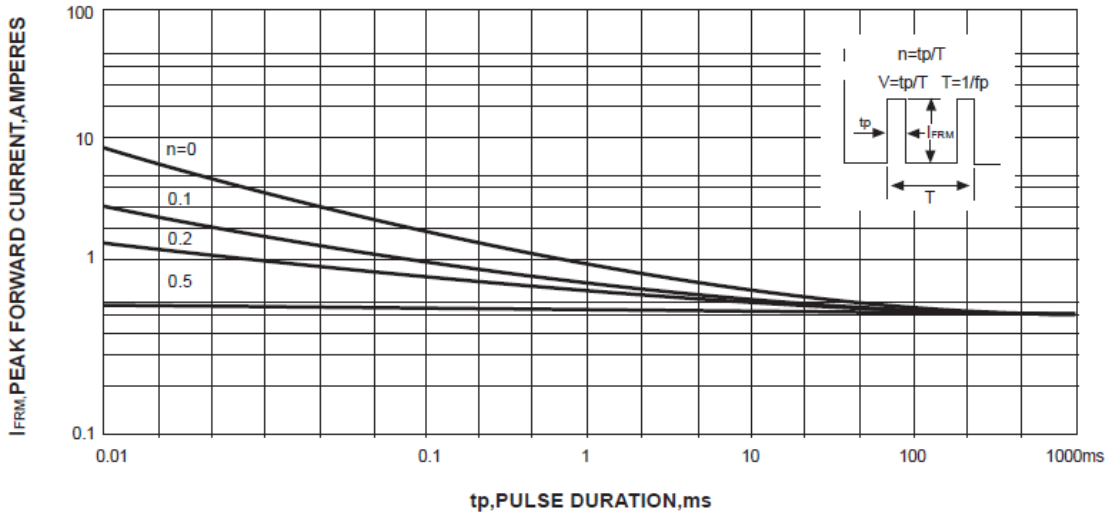


FIG. 5-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION



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