

1N4148

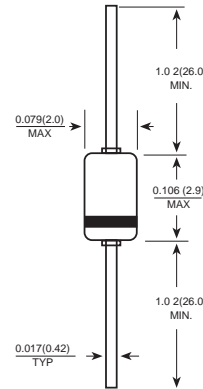
FEATURES

- Silicon epitaxial planar diode
- Switching diodes
- 500mw power dissipation
- High temperature soldering guaranteed
- 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

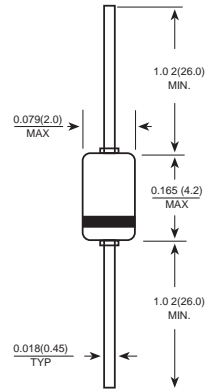
MECHANICAL DATA

- Case : DO-34\DO-35 glass sealed envelope.
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.003 ounce, 0.09 grams(DO-34)
0.005 ounce, 0.14 grams(DO-35)

DO-34(GLASS)



DO-35(GLASS)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- 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%.

	SYMBOLS	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 $T_A=25^\circ\text{C}$	$I_{(AV)}$	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 $T_A=25^\circ\text{C}$ $V_R=75\text{V}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$ $V_R=20\text{V}$	I_R	5.0 50	μA
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	$^\circ\text{C}$

NOTES:

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

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FIG. 1-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

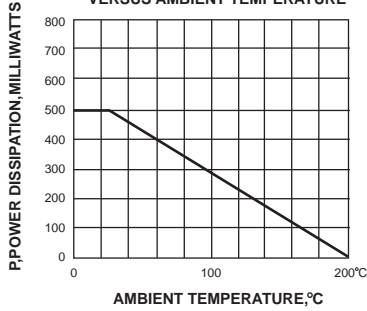


FIG. 2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE (TYPICAL VALUES)

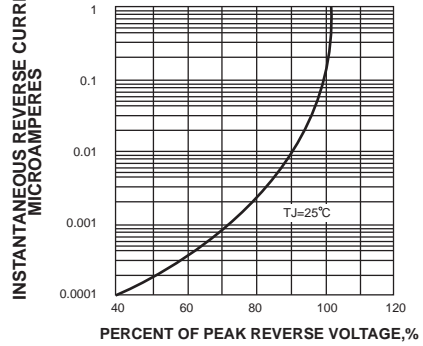


FIG. 3-FORWARD CHARACTERISTICS

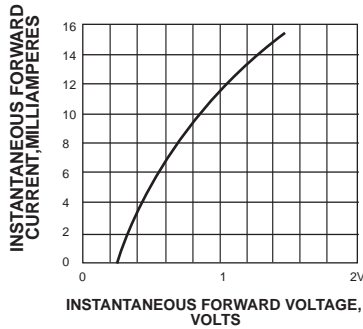


FIG. 4-RELATIVE CAPACTANCE VERSUS REVERSE VOLTAGE

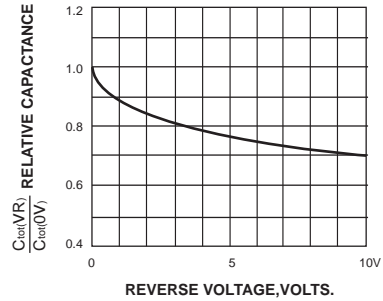
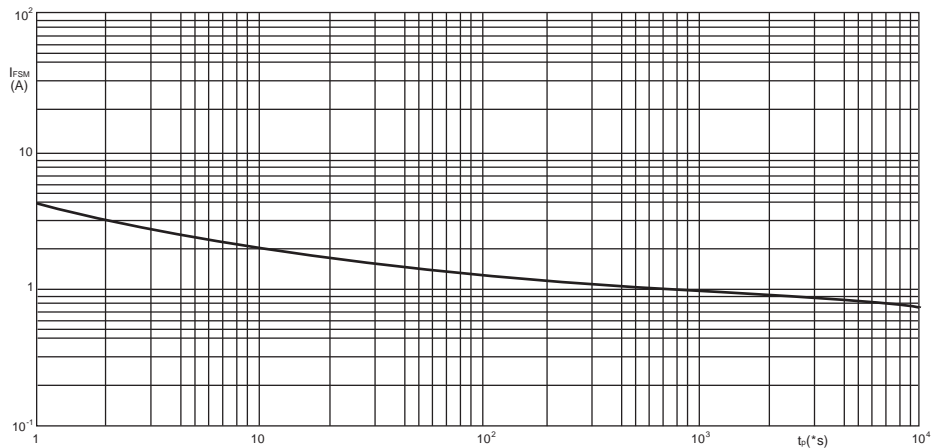


FIG. 5-MAXIMUM PERMISSIBLE NON-REPETITIVE PEAK FORWARD CURRENT AS A FUNCTION OF PULSE DURATION



Based on square wave currents. $T_J = 25^\circ$ prior to surge.