

1N4148

PRV : 100 Volts
Io : 150 mA

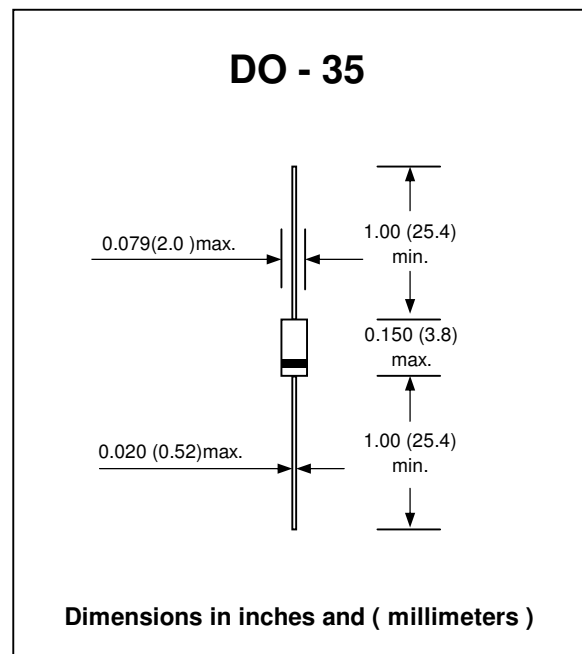
FEATURES :

- * Silicon Epitaxial Planar Diode
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * High speed switching
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : DO-35 Glass Case
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.13 gram (approximately)

HIGH SPEED SWITCHING DIODE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum Reverse Voltage	V_R	75	V
Maximum Average Forward Current	$I_{F(AV)}$	150 ¹⁾	mA
Maximum Surge Forward Current at $t < 1s$ and $T_J = 25^{\circ}C$	I_{FSM}	500	mA
Maximum Power Dissipation , $T_a = 25^{\circ}C$	P_D	500	mW
Maximum Forward Voltage at $I_F = 10\text{ mA}$	V_F	1.0	V
Maximum Reverse Current at $V_R = 20V$	I_R	25	nA
at $V_R = 75V$		5	μA
at $V_R = 20V, T_J = 150^{\circ}C$		50	μA
Maximum Voltage Rise when switching ON test with 50mA Pulses $t_p = 0.1\mu s$, Rise Time $< 30ns$ $f_p = 5$ to 100kHz	V_{tr}	2.5	V
Maximum Reverse Recovery Time from $I_F = 10mA$ to $I_R = 1mA$, $V_R = 6V$, $R_L = 100\Omega$	T_{rr}	4	ns
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	350 ¹⁾	K/W
Junction Temperature Range	T_J	175	$^{\circ}C$
Storage Temperature Range	T_{STG}	- 65 to + 175	$^{\circ}C$

Note : 1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature (DO-35)

RATING AND CHARACTERISTIC CURVES (1N4148)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

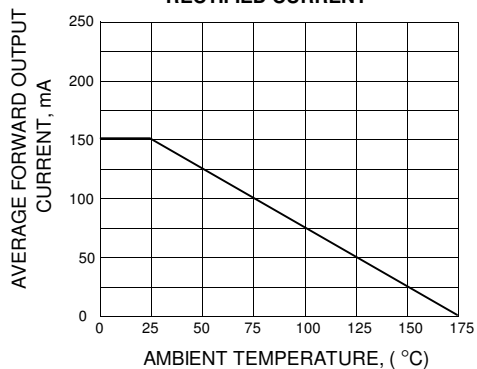


FIG.2 - POWER DERATING CURVE

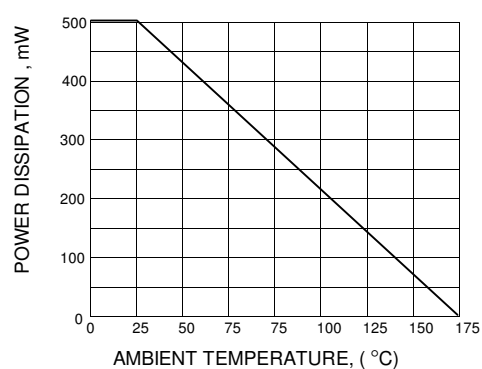


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

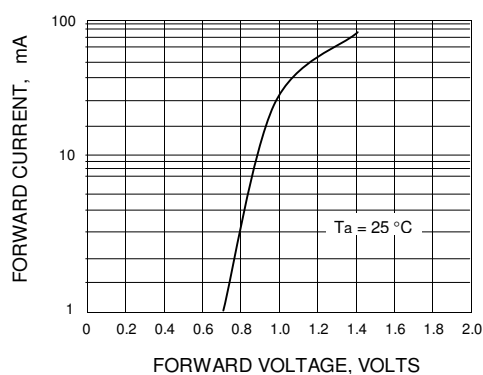


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

