

1N4148

HIGH SPEED SWITCHING DIODE

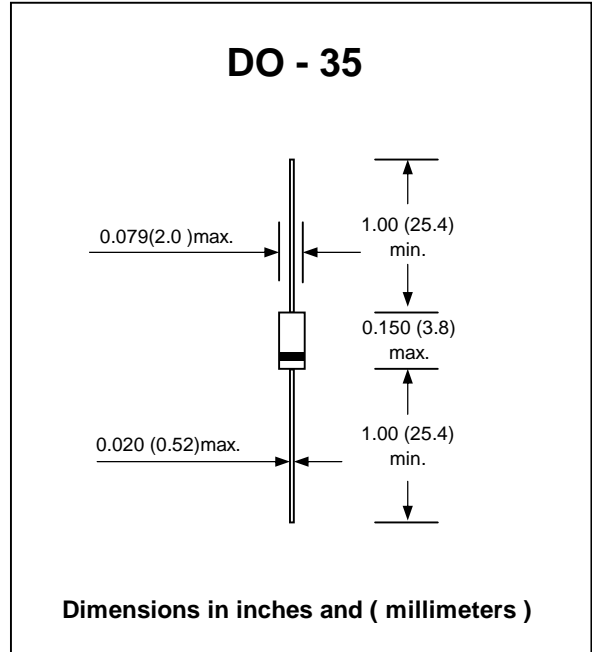
PRV : 100 Volts
Io : 150 mA

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)



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°C	I _{FSM}	500	mA
Maximum Power Dissipation , Ta = 25 °C	P _D	500	mW
Maximum Forward Voltage at I _F = 10 mA	V _F	1.0	V
Maximum Reverse Current at V _R = 20V at V _R = 75V at V _R = 20V, T _j = 150°C	I _R	25	nA
		5	µA
		50	µA
Maximum Voltage Rise when switching ON test with 50mA Pulses tp = 0.1µs, Rise Time <30ns fp = 5 to 100kHz	V _{fr}	2.5	V
Maximum Reverse Recovery Time from I _F = 10mA to I _R = 1mA , V _R = 6V , R _L = 100Ω	T _{rr}	4	ns
Thermal Resistance Junction to Ambient Air	RθJA	350 ⁽¹⁾	K/W
Junction Temperature Range	T _J	175	°C
Storage Temperature Range	T _{STG}	- 65 to + 175	°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

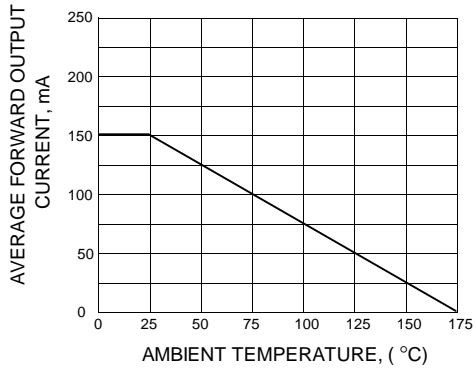


FIG.2 - POWER DERATING CURVE

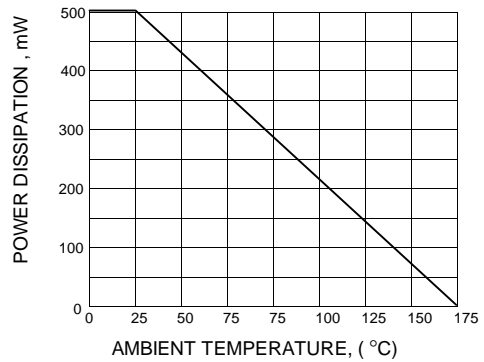


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

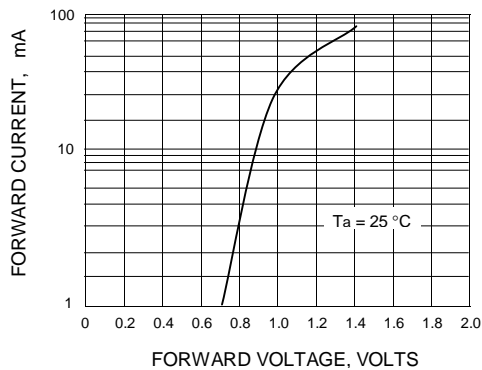


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

