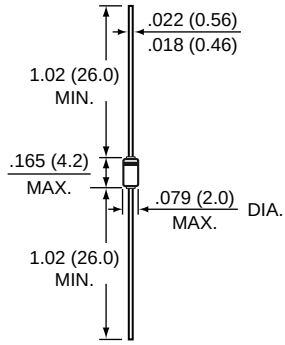
1N4148G

SMALL-SIGNAL DIODE

Reverse Voltage 100 Volts Peak Forward Current - 150mA

DO-35



*Dimensions in inches and (millimeters)



FEATURES

* Silicon Epitaxial Planar Diode
* Fast switching diode.
* Lead free product

MECHANICAL DATA

Case : DO-35 Glass Case
Weight : approx. 0.13 gram

MAXIMUM RATINGS THERMAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOLS	VALUE	UNITS
Continuous Reverse Voltage	V_R	75	Vdc
Peak Reverse Voltage	V_{RM}	100	Vdc
Average Rectified Current Half Wave Rectification with Resistive Load at Tamb = 25°C	$I_{F(AV)}$	150	mAdc
Surge Forward Current at t < 1s and Tj = 25°C	I_{FSM}	500	mAdc
Power Dissipation at Tamb = 25°C(1)	P_{tot}	500	mW
Thermal Resistance Junction to Ambient Air(1)	$R_{\theta JA}$	350	K / W
Junction Temperature	T_J	175	°C
Storage Temperature	T_{STG}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNITS
Reverse Voltage Leakage Current	(V_R=20Vdc) (V_R=75Vdc) (V_R=20Vdc, T_J=150°C)	I_R	- - -	- - -	25 5 50	nAdc uAdc uAdc
Reverse Breakdown Voltage	(I_R=100uAdc)	$V_{(BR)}$	100	-	-	Vdc
Forward Voltage	(I_F=10mAdc)	V_F	-	-	1.0	Vdc
Junction Capacitance	(V_R=0, f=1.0MHz)	C_J	-	-	4	pF
Voltage Rise when Switching ON (tested with 50 mA Pulses)	(t_p=0.1us, Rise time < 30ns f_p=5 to 100 kHz	V_{FR}	-	-	2.5	V
Reverse Recovery Time	(I_F=10mA, I_R=1mA, V_R=6V, R_L=100Ω)	t_{rr}	-	-	4	nS

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

RATINGS AND CHARACTERISTIC CURVES OF 1N4148G

FIG.1 - FORWARD CHARACTERISTICS

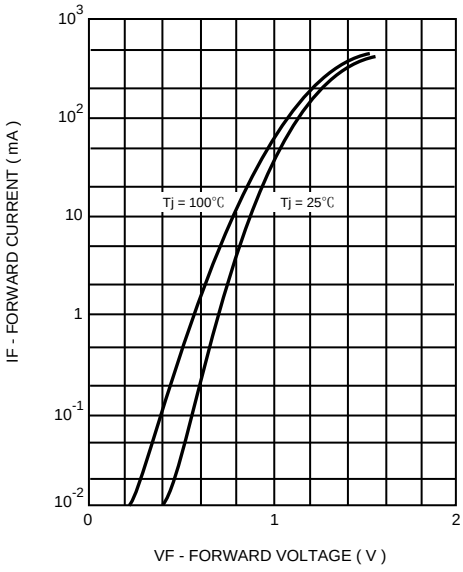


FIG.2 - ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

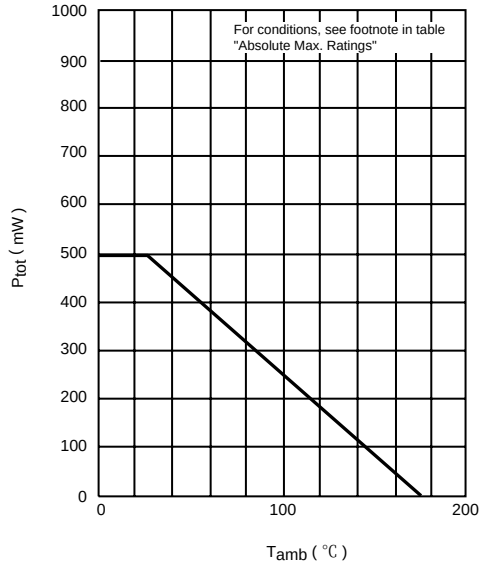


FIG.3 - RELATIVE CAPACITANCE VERSUS REVERSE VOLTAGE

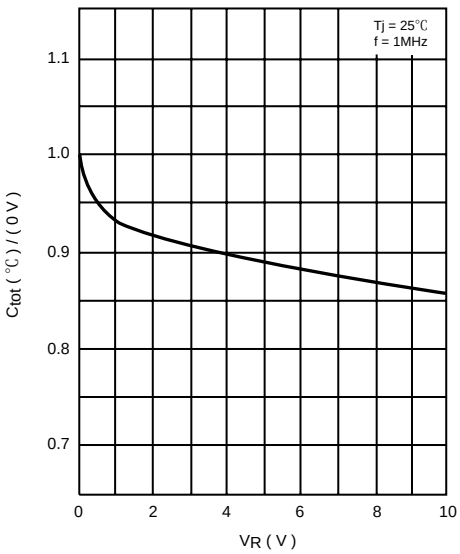


FIG.4 - LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

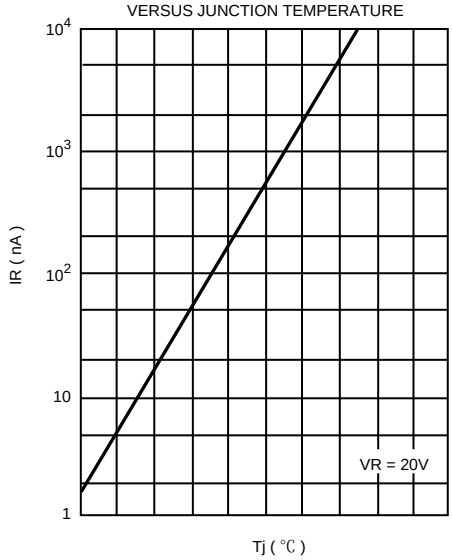


FIG.5 - ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

