



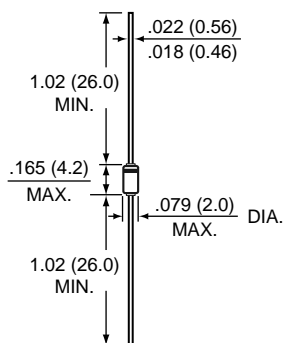
1N4148

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.

MECHANICAL DATA

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

MAXIMUM RATINGS THERMAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ 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 $T_{amb} = 25^{\circ}\text{C}$	$I_F(AV)$	150	mAdc
Surge Forward Current at $t < 1\text{s}$ and $T_j = 25^{\circ}\text{C}$	I_{FSM}	500	mAdc
Power Dissipation at $T_{amb} = 25^{\circ}\text{C}^{(1)}$	P_{tot}	500	mW
Thermal Resistance Junction to Ambient Air ⁽¹⁾	$R_{\theta JA}$	350	$^{\circ}\text{C} / \text{W}$
Junction Temperature	T_J	175	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 to +175	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

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

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RATINGS AND CHARACTERISTIC CURVES OF 1N4148

FIG.1 - FORWARD VOLTAGE VS. JUNCTION TEMPERATURE

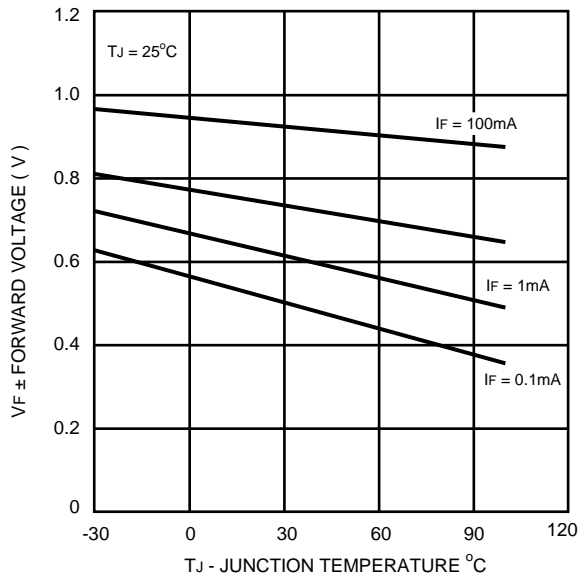


FIG.2 - FORWARD CURRENT VS. FORWARD VOLTAGE

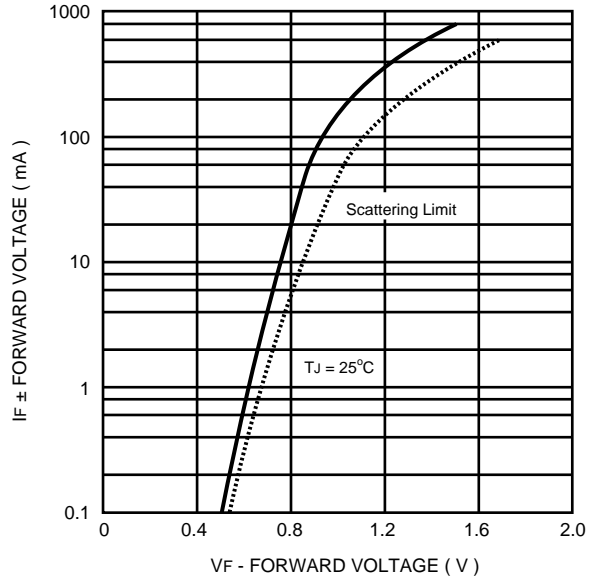


FIG.3 - REVERSE CURRENT VS. REVERSE VOLTAGE

