

Small Signal Product

500mW High Speed Switching Diode

FEATURES

- Fast switching device ($t_{rr} < 4.0\text{ns}$)
- Through-hole device type mounting
- Moisture sensitivity level 1
- Solder hot dip Tin(Sn) lead finish
- Pb free version and RoHS compliant
- All external surfaces are corrosion resistant and leads are readily solderable
- Packing code with suffix "G" means Halogen-free


DO-35

Hermetically Sealed Glass



MECHANICAL DATA

- Case : DO-35
- High temperature soldering guaranteed: $260^{\circ}\text{C}/10\text{s}$
- Polarity: Indicated by black cathode band
- Weight : $109 \pm 4\text{ mg}$

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	500	mW
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Peak Forward Surge Current Pulse Width = $1\mu\text{s}$, Square Wave	I_{FSM}	2.0	A
Non-Repetitive Peak Forward Current	I_{FM}	450	mA
Average Forward Current	I_O	150	mA
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	240	$^{\circ}\text{C}/\text{W}$
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^{\circ}\text{C}$

PARAMETER	SYMBOL	MIN	TYP	MAX	CONDITION	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	100	-	-	$I_R = 100\mu\text{A}$	V
		75	-	-	$I_R = 5\mu\text{A}$	
Forward Voltage	V_F	0.62	-	0.72	1N4448, 1N914B $I_F = 5.0\text{mA}$	V
		-	-	1.0	1N4148 $I_F = 10.0\text{mA}$	
		-	-	1.0	1N4448, 1N914B $I_F = 100.0\text{mA}$	
Reverse Leakage Current	I_R	-	-	25	$V_R = 20\text{V}$	nA
		-	-	5.0	$V_R = 75\text{V}$	μA
Junction Capacitance	C_J	-	-	4.0	$V_R = 0, f = 1.0\text{MHz}$	pF
Reverse Recovery Time (Note 1)	T_{rr}	-	-	4.0		ns

Note : 1. Test Conditions : $I_F = 10\text{mA}$, $V_R = 6\text{V}$, $R_L = 100\Omega$, $I_{RR} = 1\text{mA}$

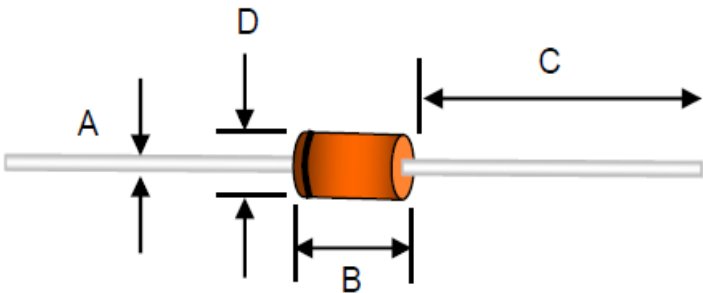
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ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
1Nxxxx (Note1)	-xx	R0	G	DO-35	10K / 14" Reel
		A0			5K / Box (Ammo)

Note 1: "xxxx" is device code from 1N4148 to 1N914B
Note 2: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
1N4148 R0G	1N4148		R0	G	Multiple manufacture source Halogen free
1N4148-L0 R0G	1N4148	L0	R0	G	Define manufacture source Halogen free
1N4148-B0 R0G	1N4148	B0	R0	G	Define manufacture source Halogen free

PACKAGE OUTLINE DIMENSION



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	0.34	0.60	0.013	0.024
B	2.90	5.08	0.114	0.200
C	25.40	38.10	1.000	1.500
D	1.30	2.28	0.051	0.090

MARKING DIAGRAM



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RATINGS AND CHARACTERISTICS CURVES

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

Fig.1 Typical Forward Characteristics

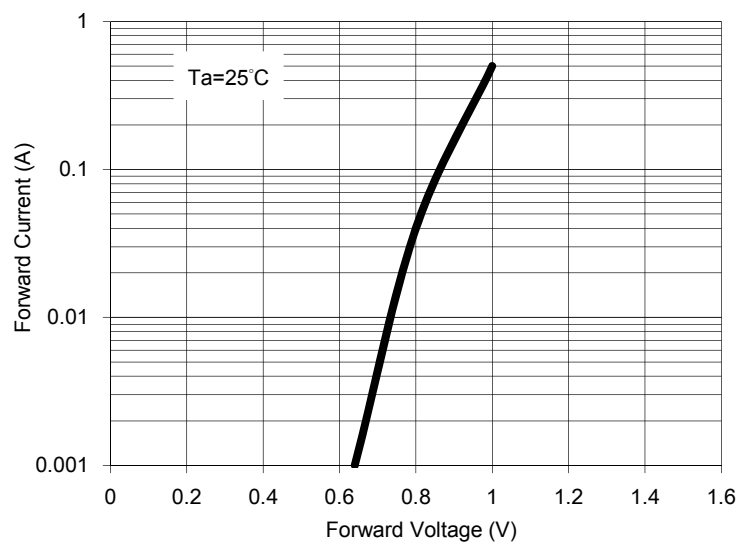


Fig. 2 Reverse Current VS. Reverse Voltage

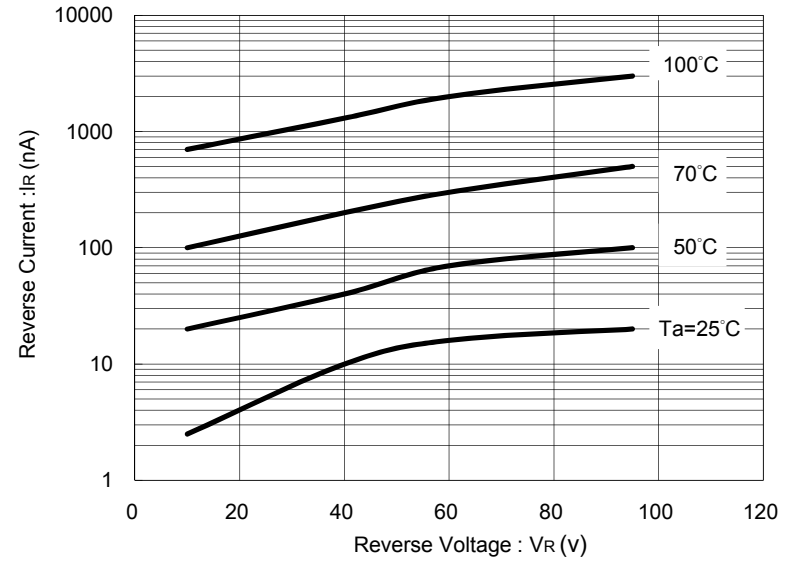


Fig. 3 Admissible Power Dissipation Curve

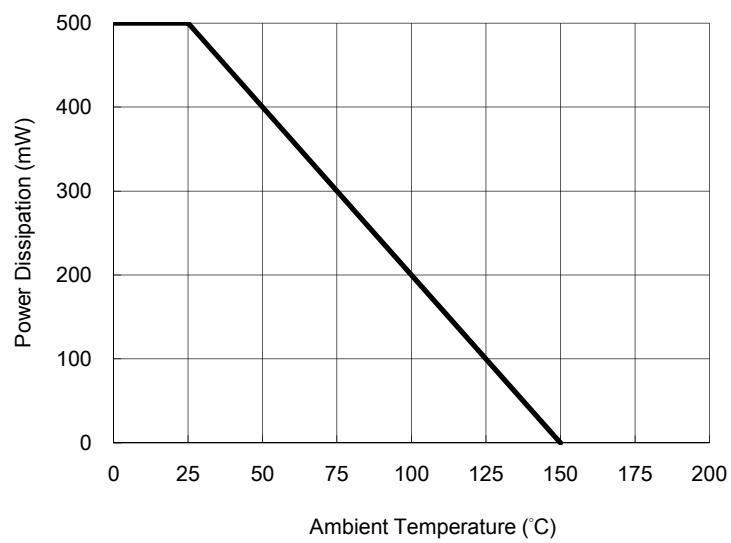
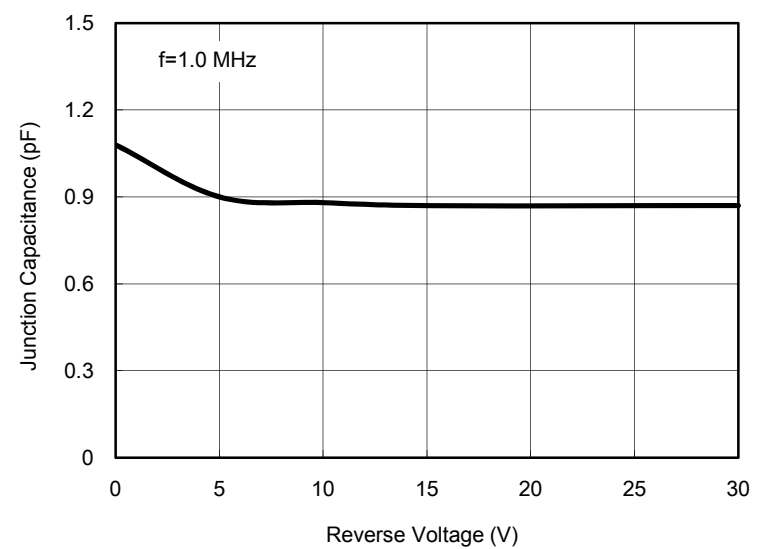


Fig. 4 Typical Junction Capacitance



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