

Small Signal Product

500mW High Speed Switching Diode

FEATURES

- Fast switching device ($t_{rr} < 4.0ns$)
- 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°C/10s
- Polarity: Indicated by black cathode band
- Weight : 109 ± 4 mg

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$ 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 Pluse Width = 1μs, 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	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

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

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

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ORDERING INFORMATION

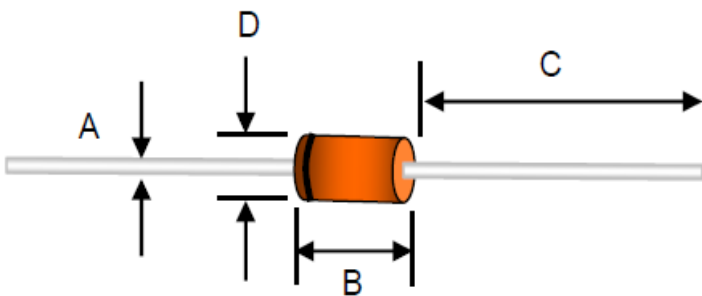
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
1Nxxxx (Note1)	-xx	R0 A0	G	DO-35	10K / 14" Reel 5K / Box (Ammo)

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

EXAMPLE

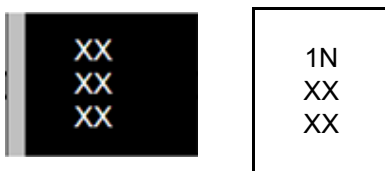
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
1N4148 R0G	1N4148		R0	G	Multiple manufacture source Halogen free
1N4148-L0 R0G	1N4148	L0	R0	G	Define manufacture source Halogen free
1N4148-B0 R0G	1N4148	B0	R0	G	Define manufacture source Halogen free

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

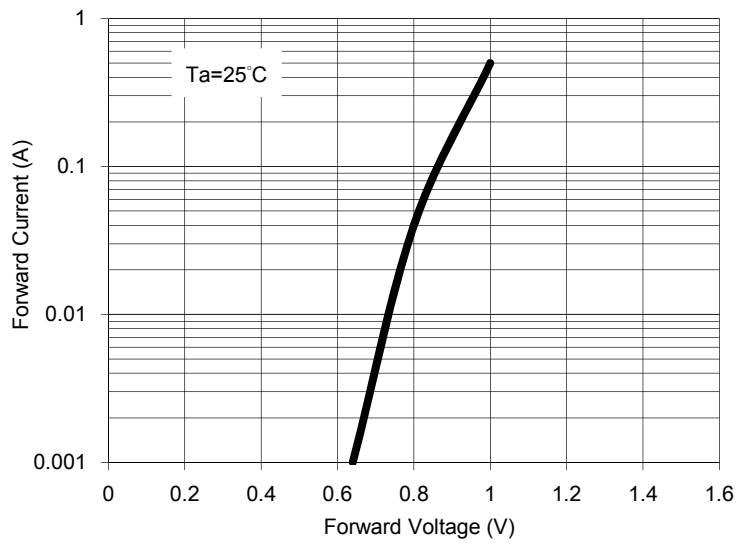


Fig. 2 Reverse Current VS. Reverse Voltage

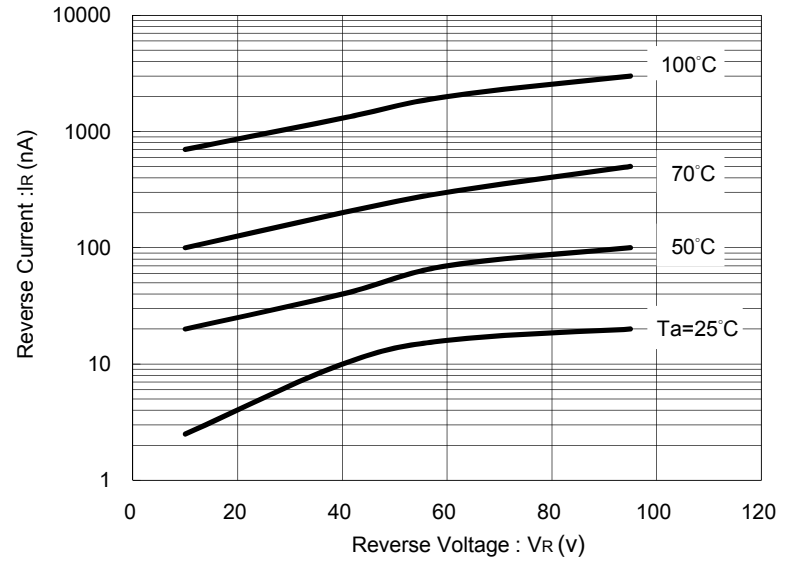


Fig. 3 Admissible Power Dissipation Curve

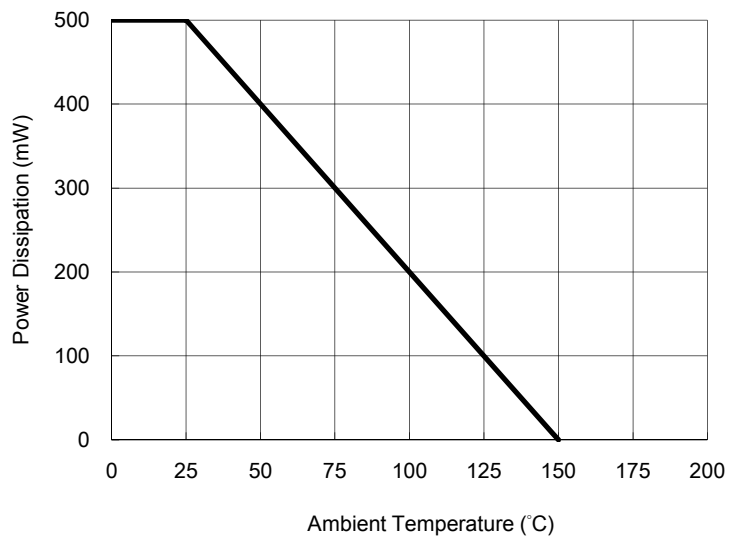
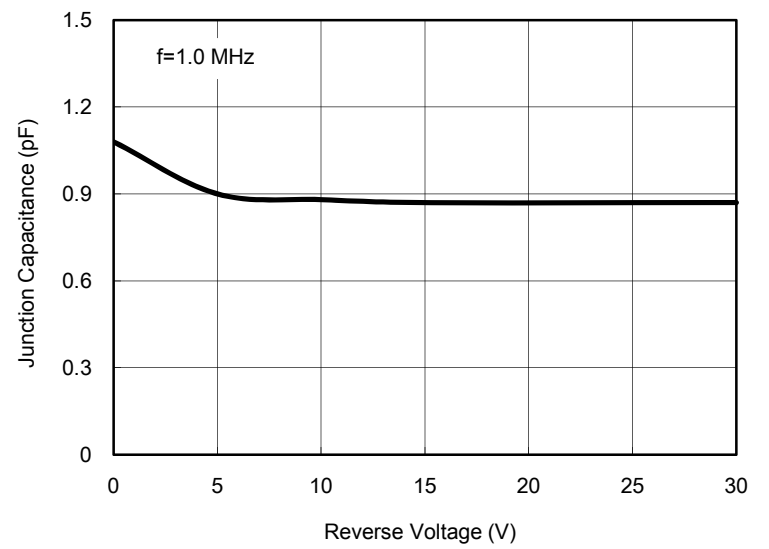


Fig. 4 Typical Junction Capacitance



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