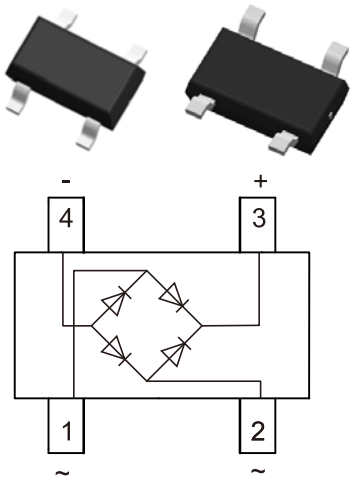
World Internation (China) Limited

NB4148

10-JUN-2021

Small Signal Fast Switching Bridge



Features

- For surface mounted applications
- Glass Passivated Chip Junction
- Fast reverse recovery time
- Ideal for automated placement
- High conductance

Mechanical Data

- Package: SOT23-4
- Lead: lead solderable per MIL-STD-202,method 208 guaranteed
- Polarity: Color band denotes cathode end

■Maximum Ratings (T_a=25℃ Unless otherwise specified)

Parameter	Symbols	NB4148	Units
Non-Repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive peak reverse voltage	V_{RRM}	75	V
Maximum RMS voltage	V_{RMS}	53	V
Continuous Forward Current	I_{FM}	300	mA
Average rectified output current	I_O	150	mA
Non-reptitive Peak Forward Surge Current @8.3ms	I_{FSM}	0.15	A
Total Power Dissipation	P_{tot}	500	mw
Operating and Storage Temperature Range	Tj,Tstg	-55-+150	°C

■Characteristics at T_a=25℃

Parameter		Symbols	NB4148	Units
Maximum Forward Voltage	at 10 mA at 150 mA	V_F	1.0 1.5	V
Peak Reverse Current	at V_R=20V Tj=25°C at V_R= 75V Tj=25°C	I_R	0.05 5	μA
Typical Junction Capacitance f=1MHz,V_R=0V		C_j	4	pF
Note: 1.IF=IR=10mA,Irr=0.1XIR,RL=100Ω				

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Fig.1 Power Derating Curve

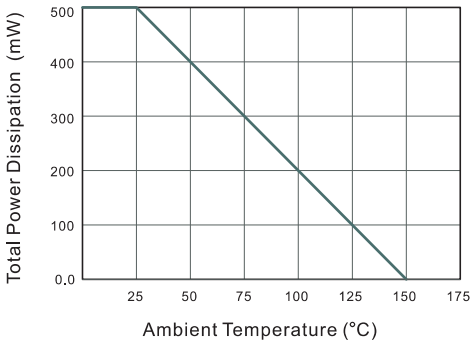


Fig.2 Typical Reverse Characteristics

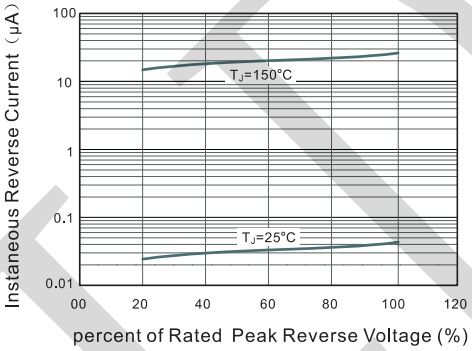


Fig.3 Typical Instaneous Forward Characteristics

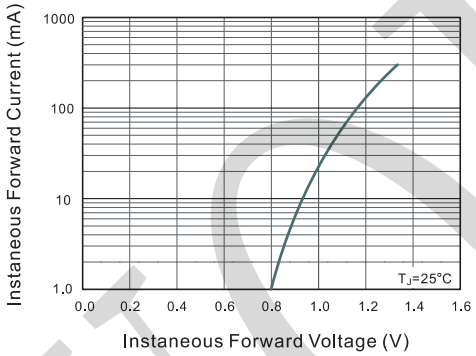
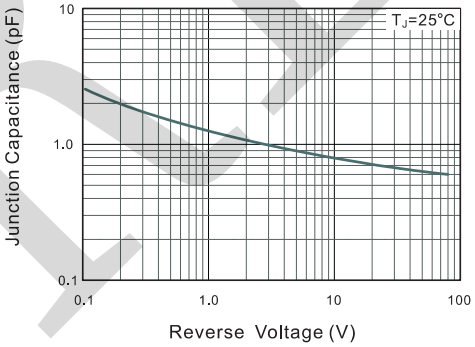
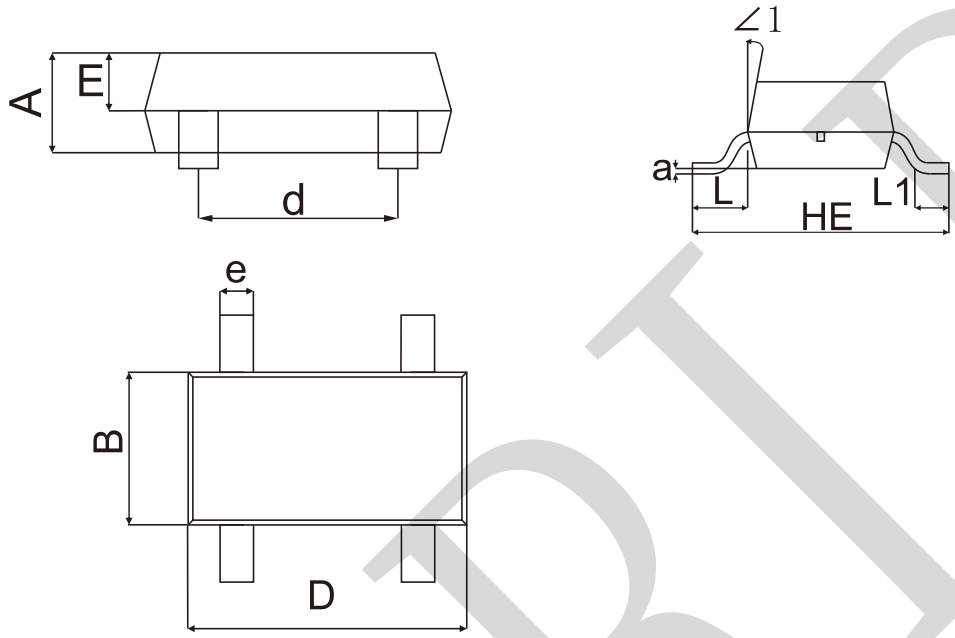


Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE DIMENSIONS

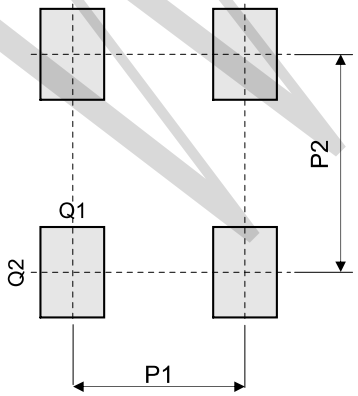
Note:unit mm(Mil)



SOT23-4 Mechanical Data

UNIT		A	B	C	H_E	D	d	E	e	L	L_1	a	∠1
mm	max	1.05	1.80	0.20	2.90	3.12	2.00	0.65	0.40	0.70	0.60	0.2 (ref)	12°
	min	0.85	1.40	0.10	2.70	2.72	1.80	0.45	0.30	0.50	0.20		
mil	max	41	71	8	114	123	39	26	16	28	24	8 (ref)	
	min	33	55	4	106	107	35	18	12	20	8		

SOT23-4 Suggested Pad Layout



UNIT		P1	P2	Q1	Q2
mm	min	1.9	2.4	0.7	1.0
mil	min	74.8	94.5	27.6	39.3