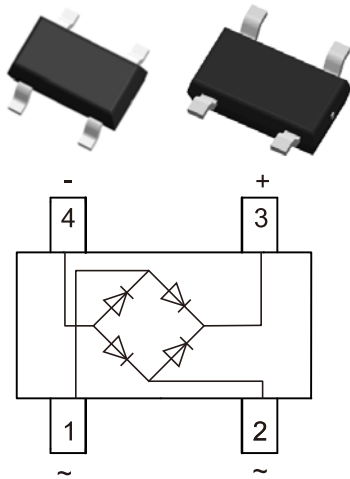


Small Signal Fast Switching Bridge



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 ($T_a=25^\circ\text{C}$ 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-repetitive Peak Forward Surge Current @8.3ms	I_{FSM}	0.15	A
Total Power Dissipation	P_{tot}	500	mw
Operating and Storage Temperature Range	T_j, T_{stg}	-55-+150	$^\circ\text{C}$

■ Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbols	NB4148	Units
Maximum Forward Voltage at 10 mA at 150 mA	V_F	1.0 1.5	V
Peak Reverse Current at $V_R=20\text{V}$ $T_j=25^\circ\text{C}$ at $V_R=75\text{V}$ $T_j=25^\circ\text{C}$	I_R	0.05 5	μA
Typical Junction Capacitance $f=1\text{MHz}, V_R=0\text{V}$	C_j	4	pF
Note: 1. $I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$			

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

Fig.1 Power Derating Curve

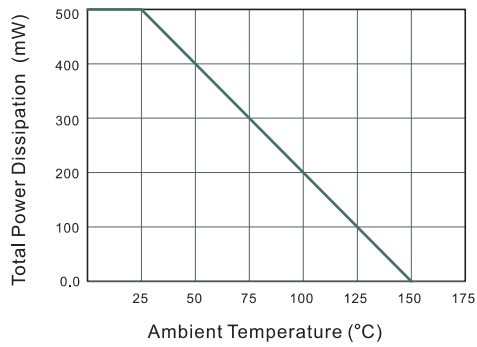


Fig.2 Typical Reverse Characteristics

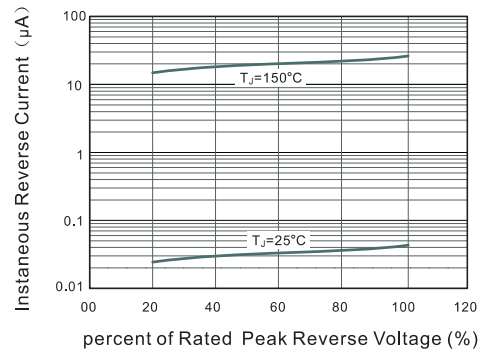


Fig.3 Typical Instaneous Forward Characteristics

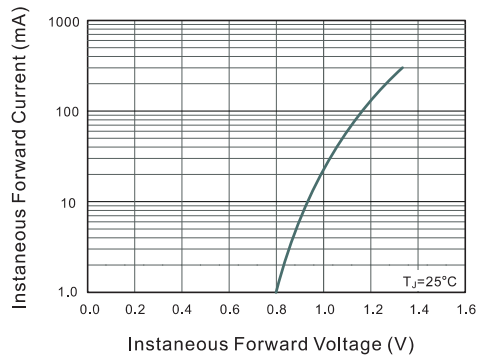
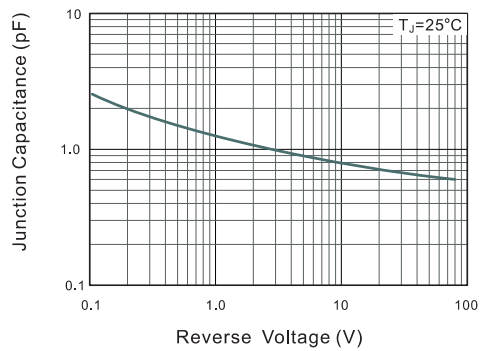
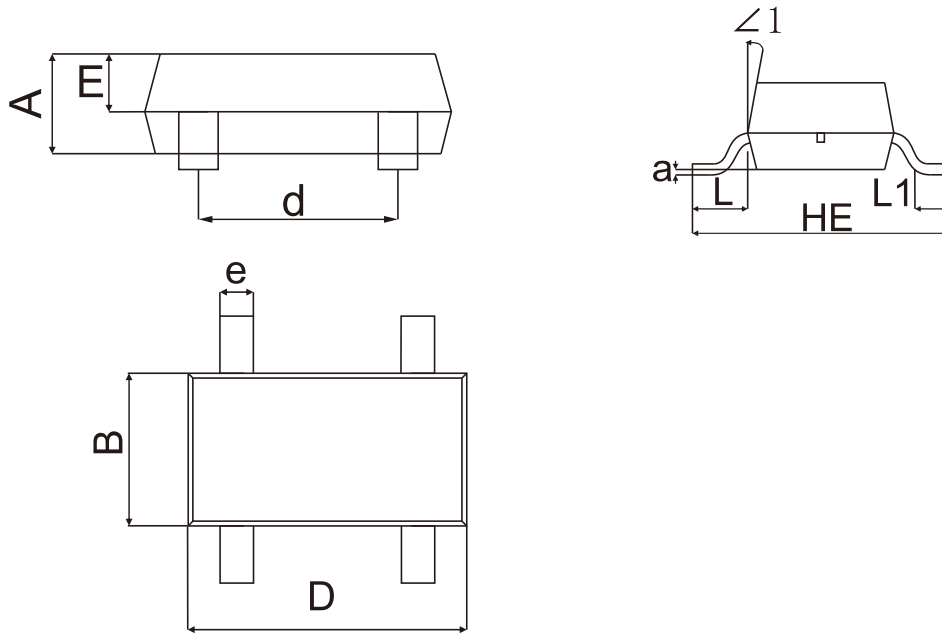


Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE DIMENSIONS

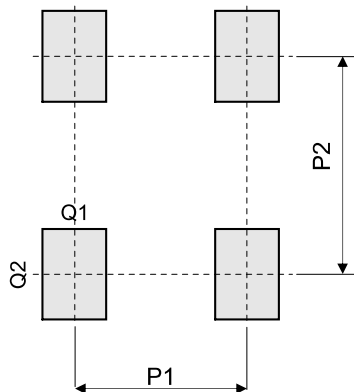
Note:unit mm(Mil)



SOT23-4 Mechanical Data

UNIT		A	B	C	HE	D	d	E	e	L	L1	a	$\angle 1$
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