

SINLOON®

貼片穩壓二極管
SURFACE MOUNT ZENER DIODE

BZT52C2V4-BZT52C51
SOD-123 410mW

FEATURE:

- Planar Die Construction
- 410mW Power Dissipation
- Nominal Zener Voltage 2.4V ~ 51V
- Standard Tolerance Vz ±5%.
- Designed for Surface Mount Application
- Plastic material - UL recognition flammability classification 94V-0

MECHANICAL CHARACTERISTICS:

- Case: SOD-123, Merged plastic.
- Weight: 0.01 grams (approx)
- Polarity: Cathode band.
- Marking: Device Code See Data
- Terminals: Plated Leads solderable per MIL-STD-202, Method 208
- Lead Free: For **RoHS** Lead Free version.

DIMENSION:

Dimension (mm)			
A	3.7 ± 0.2	E	0.2
B	2.7 ± 0.1	F	0.4
C	1.6 ± 0.2	G	1.2 ± 0.15
D	0.55 ± 0.2	H	0.12

Figure:



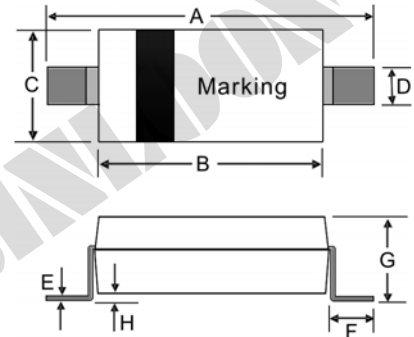
Cathode Band Color: white

Cathode



Anode

Electrical Symbol



Maximum Ratings @T_A=25°C unless otherwise specified

Parameter at Tamb = 25°C	Symbol	Value	Unit
Peak Pulse Power Dissipation at T _A = 25°C (Note ¹)			
Forward Voltage @I _F = 100mA			
Thermal Resistance Junction to Ambient (Note ¹)			
Operating and Storage Temperature Range			

Note:1 Diode on ceramic substrate 10mm x 8.0mm x 0.7mm

DEVICE OUTLOOK



MARKING INFORMATION

Cathode: Polarity Band
Marking: Device Code.



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□ Electrical Characteristics @T_A=25°C unless otherwise specification

Type Number (note ¹)	Device Marking Code Fty-1 / Fty-2	Zener Voltage Range (Note ²)			Maximum Zener Impedance (Note ³)				Max. Reverse Leakage Current		Temp.Coefficient of Zener Voltage	
		Nom(V)	Min(V)	Max(V)	Z _{ZT} @I _{ZT}		Z _{ZK} @I _{ZK}		I _R (uA)	@V _R (V)	@I _{ZT} mV/°C	
					(Ω)	(mA)	(Ω)	(mA)				
BZT52C2V4	W1/WX	2.4	2.28	2.52	85.0	5.0	600	1.0	100.0	1.0	-3.5	0.0
BZT52C2V7	W2/W1	2.7	2.57	2.84	83.0	5.0	600	1.0	75.0	1.0	-3.5	0.0
BZT52C3V0	W3/W2	3.0	2.85	3.15	95.0	5.0	600	1.0	50.0	1.0	-3.5	0.0
BZT52C3V3	W4/W3	3.3	3.14	3.47	95.0	5.0	600	1.0	25.0	1.0	-3.5	0.0
BZT52C3V6	W5/W4	3.6	3.42	3.78	95.0	5.0	600	1.0	15.0	1.0	-3.5	0.0
BZT52C3V9	W6/W5	3.9	3.71	4.10	95.0	5.0	600	1.0	10.0	1.0	-3.5	0.0
BZT52C4V3	W7/W6	4.3	4.09	4.52	95.0	5.0	600	1.0	5.0	1.0	-3.5	0.0
BZT52C4V7	W8/W7	4.7	4.47	4.94	78.0	5.0	500	1.0	5.0	1.0	-3.5	0.2
BZT52C5V1	W9/W8	5.1	4.85	5.36	60.0	5.0	480	1.0	0.1	0.8	-2.7	1.2
BZT52C5V6	WA/W9	5.6	5.32	5.88	40.0	5.0	400	1.0	0.1	1.0	-2.0	2.5
BZT52C6V2	WB/WA	6.2	5.89	6.51	10.0	5.0	150	1.0	0.1	2.0	0.4	3.7
BZT52C6V8	WC/WB	6.8	6.46	7.14	8.0	5.0	80	1.0	0.1	3.0	1.2	4.5
BZT52C7V5	WD/WC	7.5	7.13	7.88	7.0	5.0	80	1.0	0.1	5.0	2.5	5.3
BZT52C8V2	WE/WD	8.2	7.79	8.61	7.0	5.0	80	1.0	0.1	6.0	3.2	6.2
BZT52C9V1	WF/WE	9.1	8.65	9.56	10.0	5.0	100	1.0	0.1	7.0	3.8	7.0
BZT52C10	WG/WF	10.0	9.50	10.50	15.0	5.0	150	1.0	0.1	7.5	4.5	8.0
BZT52C11	WH/WG	11.0	10.45	11.55	20.0	5.0	150	1.0	0.1	8.5	5.4	9.0
BZT52C12	WI/WH	12.0	11.40	12.60	20.0	5.0	170	1.0	0.1	9.0	6.0	10.0
BZT52C13	WK/WI	13.0	12.35	13.65	25.0	5.0	200	1.0	0.1	10.0	7.0	11.0
BZT52C15	WL/WJ	15.0	14.25	15.75	30.0	5.0	200	1.0	0.1	11.0	9.2	13.0
BZT52C16	WM/WK	16.0	15.20	16.80	40.0	5.0	225	1.0	0.1	12.0	10.4	14.0
BZT52C18	WN/WL	18.0	17.10	18.90	50.0	5.0	225	1.0	0.1	14.0	12.4	16.0
BZT52C20	WO/WM	20.0	19.00	21.00	50.0	5.0	250	1.0	0.1	15.0	14.4	18.0
BZT52C22	WP/WN	22.0	20.90	23.10	55.0	5.0	250	1.0	0.1	17.0	16.4	20.0
BZT52C24	WR/WO	24.0	22.80	25.20	80.0	5.0	300	1.0	0.1	18.0	18.4	22.0
BZT52C27	WS/WR	27.0	25.65	28.35	80.0	5.0	300	1.0	0.1	20.0	21.4	25.3
BZT52C30	WT/WS	30.0	28.50	31.50	80.0	5.0	325	1.0	0.1	22.5	24.4	29.4
BZT52C33	WU/WT	33.0	31.35	34.65	80.0	5.0	325	1.0	0.1	25.0	27.4	33.4
BZT52C36	WW/WU	36.0	34.20	37.80	90.0	5.0	350	1.0	0.1	27.0	30.4	37.4
BZT52C39	WX/WW	39.0	37.05	40.95	90.0	5.0	350	1.0	0.1	29.0	33.4	41.2
BZT52C43	WY/WX	43.0	40.85	45.15	100.0	5.0	700	1.0	0.1	32.0	10.0	12.0
BZT52C47	WZ/WY	47.0	44.65	49.35	100.0	5.0	750	1.0	0.1	35.0	10.0	12.0
BZT52C51	XA/WW	51.0	48.45	53.55	100.0	5.0	750	1.0	0.1	38.0	10.0	12.0

- Note:
1. Type numbers listed have standard tolerance on the nominal zener voltage of ±5%.
 2. Measured with pulses tp = 5ms.
 3. f = 1KHz

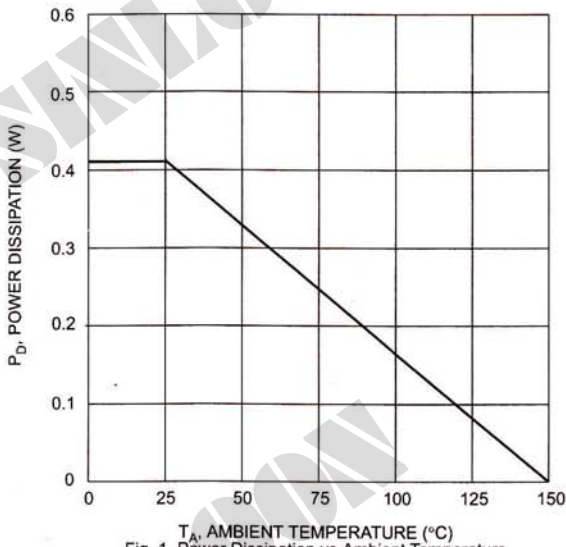


Fig. 1 Power Dissipation vs Ambient Temperature

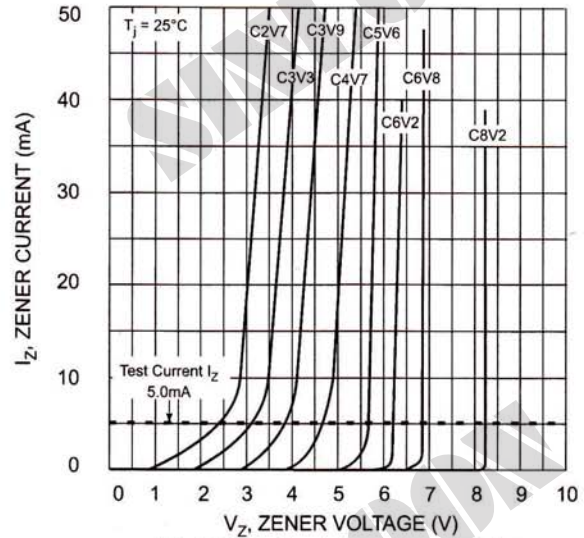


Fig. 2 Zener Breakdown Characteristics

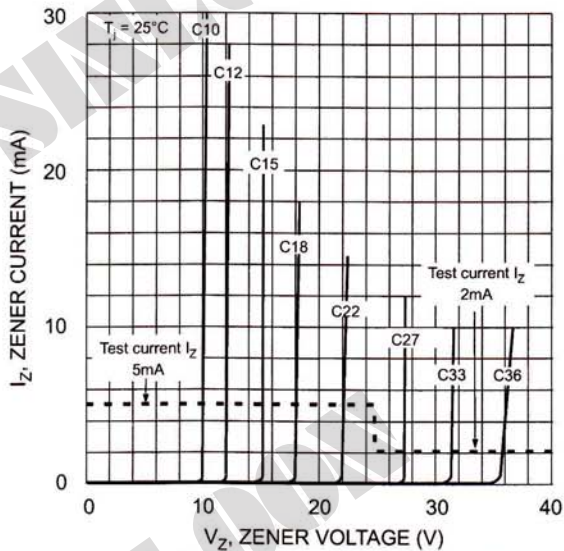


Fig. 3 Zener Breakdown Characteristics

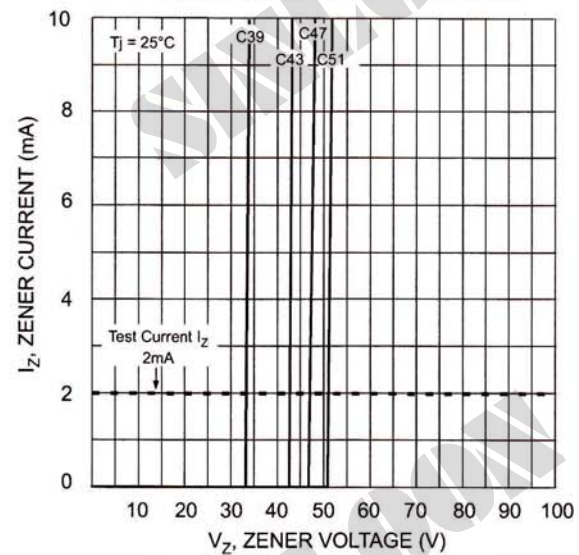


Fig. 4 Zener Breakdown Characteristics

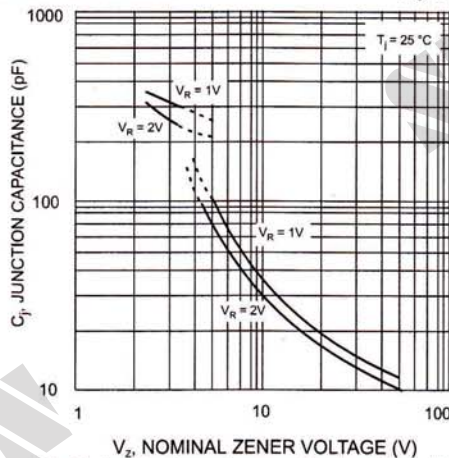


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

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RECOMMENDED SOLDERING PROFILE:

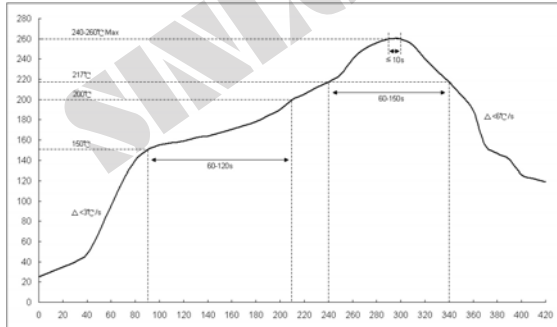


Fig 1: Reflow soldering profile for lead-free solder (SnAgCu)

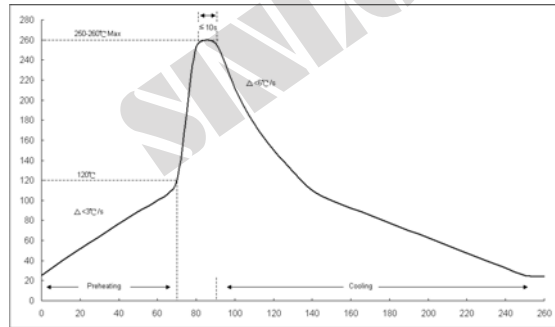
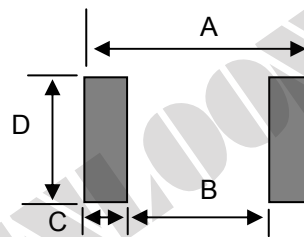


Fig 1: Wave soldering profile.

RECOMMENDED SOLDERING FOOTPRINT

TYPE	Dimension (mm)			
	A	B	C	D
BZT52Cxxx	4.2	2.36	0.91	1.22

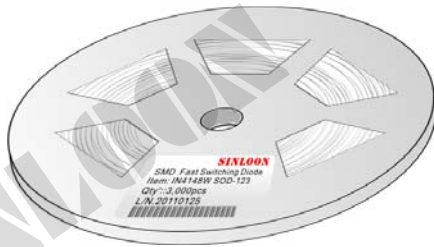


COMMON PACKING INFORMATION:

Product Number:	Package Type	Packing Quantity	Carton Quantity	Apporx Gross Weight
BZT52Cxxx	SOD-123	3000 Tape & Reel	150,000 Ctn	10 Kg

Reel Diameter (mm)	Quantity (Pcs)	Inner Box Size (mm)	Carton Size (mm)
178	3000	L: 187 x W:187 x H: 65	L:390 x W:240 x H:420

Reel Tape Fig-1



Carton Pack Fig-3



Inner Box Fig-2



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※ Mayloon characteristic parameters of electronic product specification changes or updates without prior notice.