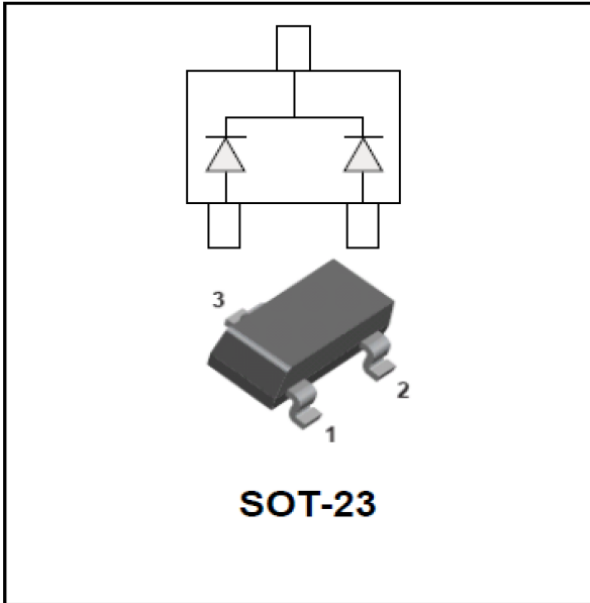


Zener Diode



Features

- High reliability
- Very sharp reverse characteristic
- Low reverse current level
- Zener Voltage 2.4V~47V

Mechanical Data

- **Package:** SOT-23
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Limiting Values (Absolute Maximum Rating, $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Characteristic	Symbol	Value	Units
Power Dissipation	PD	300	mW
Thermal Resistance from Junction to Ambient	R θ JA	417	$^{\circ}\text{C}/\text{W}$
Storage Temperature Range	TSTG	-55~+150	$^{\circ}\text{C}$
Operation Temperature	TJ	-55~+150	$^{\circ}\text{C}$

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DZ23C2V4-DZ23C47	F2	Approximate 0.009	3000	30000	120000	7" reel



DZ23C2V4 THRU DZ23C47

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

Type Number	Marking Code	Nominal Zener Voltage			Maximum Zener Impedance				Maximum Reverse Leakage Current	
		V _Z (V)@ I _{ZT}			Z _{ZT} @I _{ZT}		Z _{Zk} @I _{Zk}		I _R @ V _R	
		Min.	Typ.	Max.	Ω	mA	Ω	mA	uA	V
DZ23C2V4	V0	2.28	2.4	2.52	100	5	600	1	100	1
DZ23C2V7	KV1	2.57	2.7	2.84	100	5	600	1	75	1
DZ23C3V0	KV2	2.85	3.0	3.15	95	5	600	1	50	1
DZ23C3V3	KV3	3.14	3.3	3.47	95	5	600	1	25	1
DZ23C3V6	KV4	3.42	3.6	3.78	95	5	600	1	15	1
DZ23C3V9	KV5	3.71	3.9	4.1	95	5	600	1	10	1
DZ23C4V3	KV6	4.09	4.3	4.52	95	5	600	1	5	1
DZ23C4V7	KV7	4.47	4.7	4.94	78	5	500	1	5	2
DZ23C5V1	KV8	4.85	5.1	5.36	60	5	480	1	0.1	0.8
DZ23C5V6	KV9	5.32	5.6	5.88	40	5	400	1	0.1	1
DZ23C6V2	KVA	5.89	6.2	6.51	10	5	150	1	0.1	2
DZ23C6V8	KVB	6.46	6.8	7.14	8	5	80	1	0.1	3
DZ23C7V5	KVC	7.13	7.5	7.88	7	5	80	1	0.1	5
DZ23C8V2	KVD	7.79	8.2	8.61	7	5	80	1	0.1	6
DZ23C9V1	KVE	8.65	9.1	9.56	10	5	100	1	0.1	7
DZ23C10	KVF	9.50	10	10.50	15	5	150	1	0.1	7.5
DZ23C11	KVG	10.45	11	11.55	20	5	150	1	0.1	8.5
DZ23C12	KVH	11.40	12	12.60	20	5	150	1	0.1	9
DZ23C13	KVI	12.35	13	13.65	25	5	170	1	0.1	10
DZ23C15	KVJ	14.25	15	15.75	30	5	200	1	0.1	11
DZ23C16	KVK	15.20	16	16.80	40	5	200	1	0.1	12
DZ23C18	KVL	17.10	18	18.90	50	5	225	1	0.1	14
DZ23C20	KVM	19.00	20	21.00	50	5	225	1	0.1	15
DZ23C22	KVN	20.90	22	23.10	55	5	250	1	0.1	17
DZ23C24	KVO	22.80	24	25.20	80	5	250	1	0.1	18
DZ23C27	KVP	25.65	27	28.35	80	5	300	1	0.1	20



DZ23C2V4 THRU DZ23C47

DZ23C30	KVQ	28.50	30	31.50	80	5	300	1	0.1	22.5
DZ23C33	KVR	31.35	33	34.65	80	5	325	1	0.1	25
DZ23C36	KVS	34.20	36	37.80	90	5	350	1	0.1	27
DZ23C39	KVT	37.05	39	40.95	90	5	350	1	0.1	29
DZ23C43	KVU	40.85	43	45.15	100	5	700	1	0.1	32
DZ23C47	KVV	44.65	47	49.35	100	5	750	1	0.1	35



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■ Characteristics(Typical)

Fig 1: P_D-T_A Curve

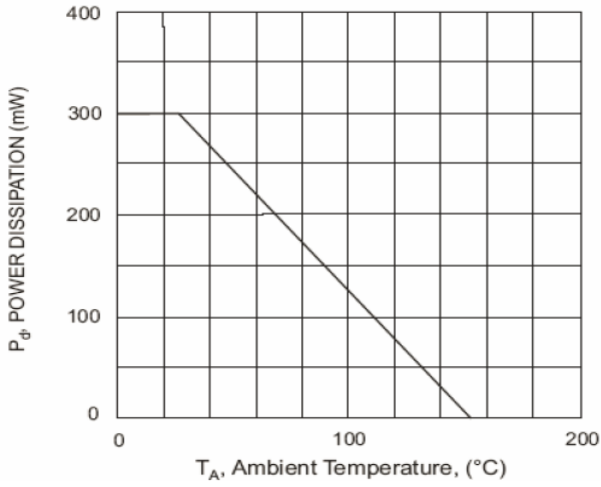


Fig 2: Zener Breakdown Characteristics

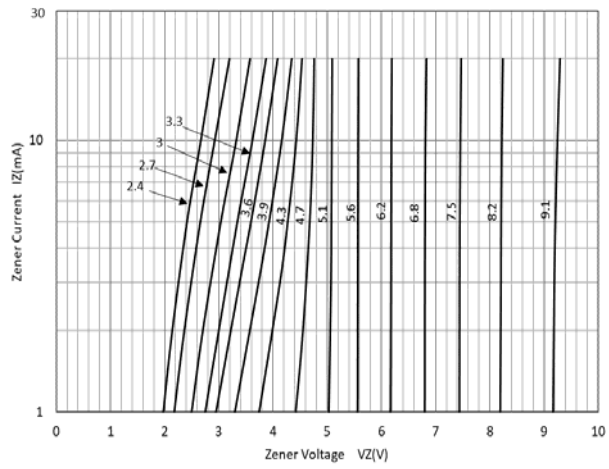


Fig 3: Zener Breakdown Characteristics

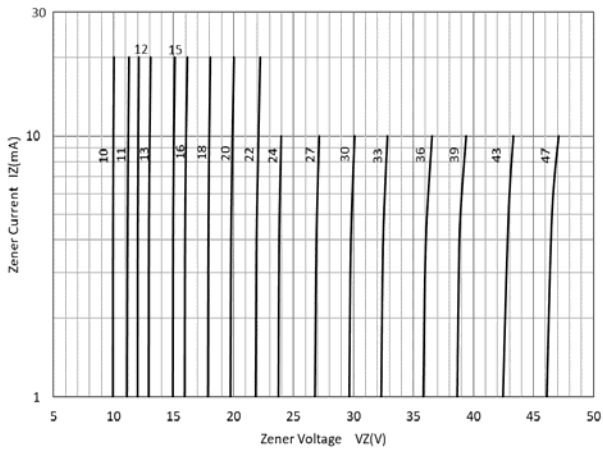


Fig 4 Typical Temperature Coefficient

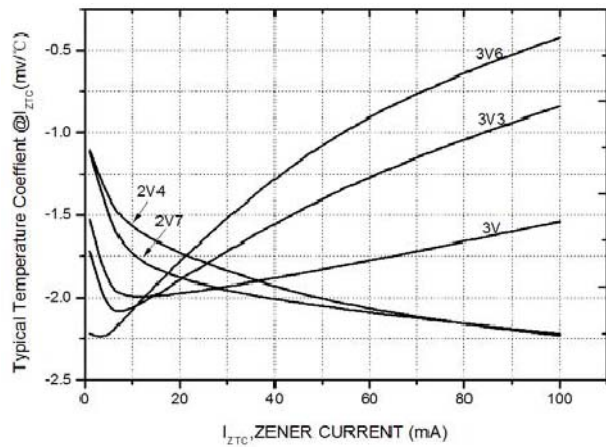


Fig 5 Typical Temperature Coefficient

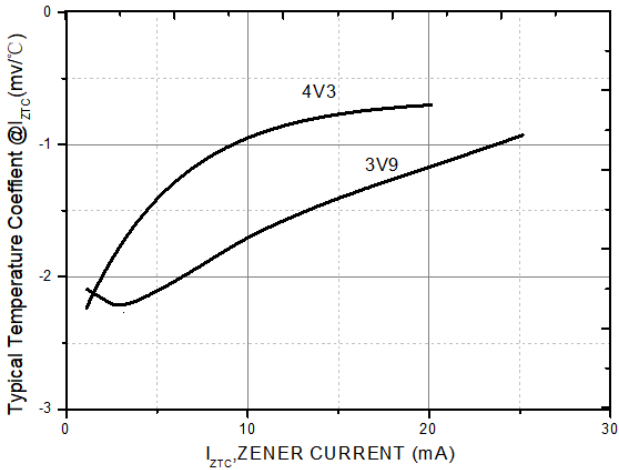
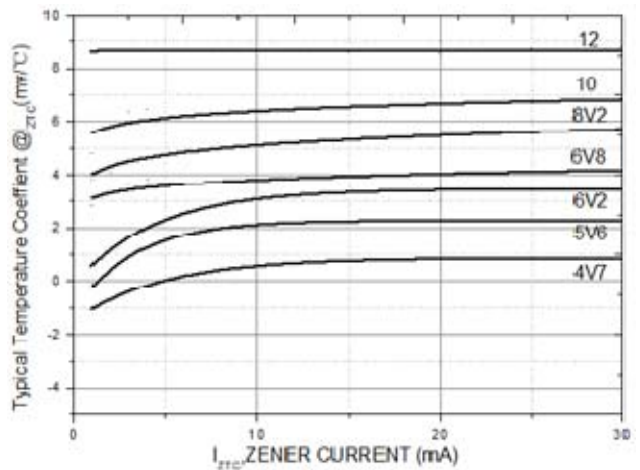


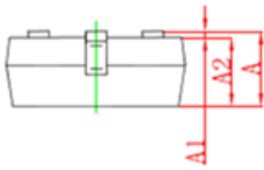
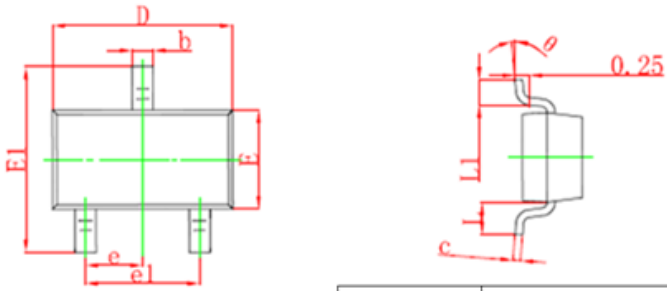
Fig 6: Typical Temperature Coefficient





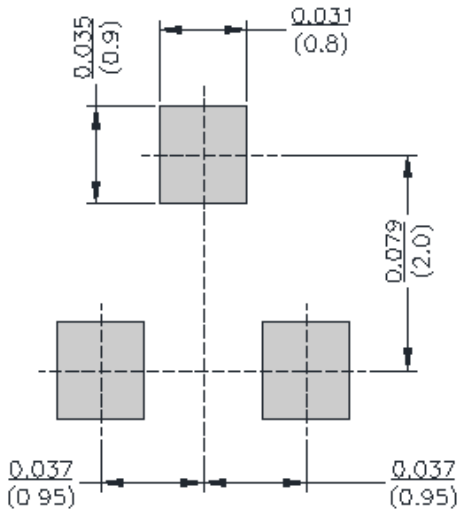
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■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23 Suggested Pad Layout





DZ23C2V4 THRU DZ23C47

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