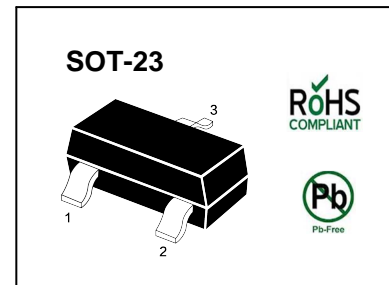


### SILICON PLANAR ZENER DIODES

This series of Zener diodes is offered in the convenient, surface mount plastic SOT-23 package. These devices are designed to provide voltage regulation with minimum space requirement. They are well suited for applications such as cellular phones, hand held portables, and high density PC boards.



#### Features

- Zener breakdown voltage range – 2.4 V to 75 V
- Package designed for optimal automated board assembly
- Small package size for high density applications

#### Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P <sub>D</sub>	350	mW
Thermal Resistance, Junction to Ambient <sup>1)</sup>	R <sub>θJA</sub>	417	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>S</sub>	- 65 to + 150	°C

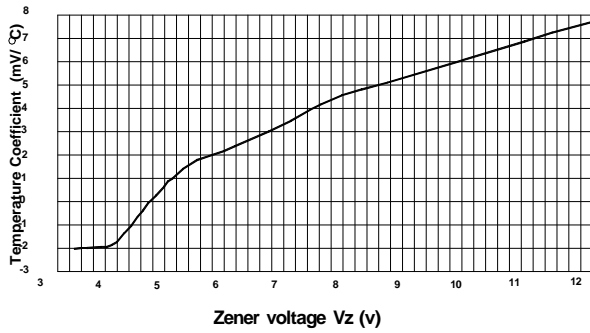
<sup>1)</sup> Alumina = 0.4 X 0.3 X 0.024 in, 99.5% alumina

### Electrical Characteristics ( $T_a = 25\text{ }^\circ\text{C}$ unless otherwise noted, $V_F < 0.9\text{ V}$ at $I_F = 10\text{ mA}$ )

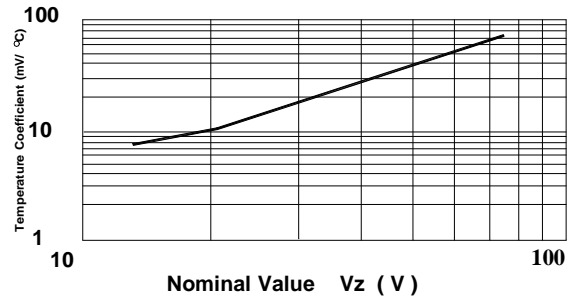
Type	Marking Code	Zener Voltage Range <sup>1)</sup>				Dynamic Resistance	Reverse Leakage Current	
		Min.	Nom.	Max.	$I_{ZT}$ (mA)	$Z_{ZT}$ Max. ( $\Omega$ )	$I_R$ Max. ( $\mu\text{A}$ )	at $V_R$ (V)
BZX84C2V4CC	JH	2.2	2.4	2.6	5	100	50	1
BZX84C2V7CC	JJ	2.5	2.7	2.9	5	100	20	1
BZX84C3V0CC	JK	2.8	3	3.2	5	95	10	1
BZX84C3V3CC	JM	3.1	3.3	3.5	5	95	5	1
BZX84C3V6CC	JN	3.4	3.6	3.8	5	90	5	1
BZX84C3V9CC	JP	3.7	3.9	4.1	5	90	3	1
BZX84C4V3CC	JR	4	4.3	4.6	5	90	3	1
BZX84C4V7CC	JX	4.4	4.7	5	5	80	3	2
BZX84C5V1CC	JY	4.8	5.1	5.4	5	60	2	2
BZX84C5V6CC	JZ	5.2	5.6	6	5	40	1	2
BZX84C6V2CC	KA	5.8	6.2	6.6	5	10	3	4
BZX84C6V8CC	KB	6.4	6.8	7.2	5	15	2	4
BZX84C7V5CC	KC	7	7.5	7.9	5	15	1	5
BZX84C8V2CC	KD	7.7	8.2	8.7	5	15	0.7	5
BZX84C9V1CC	KE	8.5	9.1	9.6	5	15	0.5	6
BZX84C10CC	KF	9.4	10	10.6	5	20	0.2	7
BZX84C11CC	KH	10.4	11	11.6	5	20	0.1	8
BZX84C12CC	KJ	11.4	12	12.7	5	25	0.1	8
BZX84C13CC	KK	12.4	13	14.1	5	30	0.1	8
BZX84C15CC	KM	14.3	15	15.8	5	30	0.05	10.5
BZX84C16CC	KN	15.3	16	17.1	5	40	0.05	11.2
BZX84C18CC	KP	16.8	18	19.1	5	45	0.05	12.6
BZX84C20CC	KR	18.8	20	21.2	5	55	0.05	14
BZX84C22CC	KX	20.8	22	23.3	5	55	0.05	15.4
BZX84C24CC	KY	22.8	24	25.6	5	70	0.05	16.8
BZX84C27CC	KZ	25.1	27	28.9	2	80	0.05	18.9
BZX84C30CC	MA	28	30	32	2	80	0.05	21
BZX84C33CC	MB	31	33	35	2	80	0.05	23.1
BZX84C36CC	MC	34	36	38	2	90	0.05	25.2
BZX84C39CC	MD	37	39	41	2	130	0.05	27.3
BZX84C43CC	ME	40	43	46	2	150	0.05	30.1
BZX84C47CC	MF	44	47	50	2	170	0.05	32.9
BZX84C51CC	MH	48	51	54	2	180	0.05	35.7
BZX84C56CC	MJ	52	56	60	2	200	0.05	39.2
BZX84C62CC	MK	58	62	66	2	215	0.05	43.4
BZX84C68CC	MM	64	68	72	2	240	0.05	47.6
BZX84C75CC	MN	70	75	79	2	255	0.05	52.5

<sup>1)</sup> Tested with pulses  $t_p = 20\text{ ms}$ .

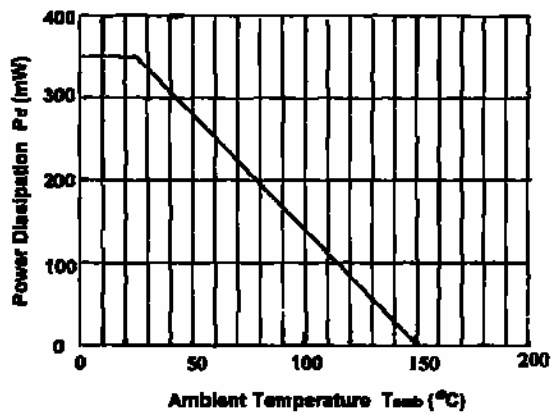
Temperature Coefficient



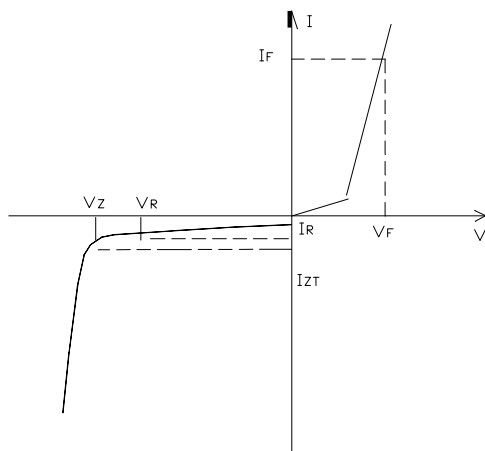
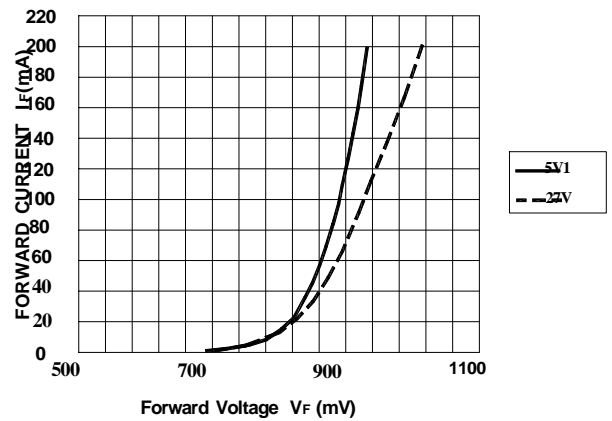
Temperature Coefficient



Power Derating Curve



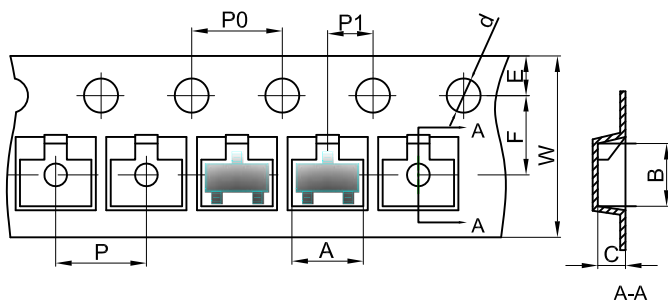
Typical Forward Voltage



Zener Voltage Regulator

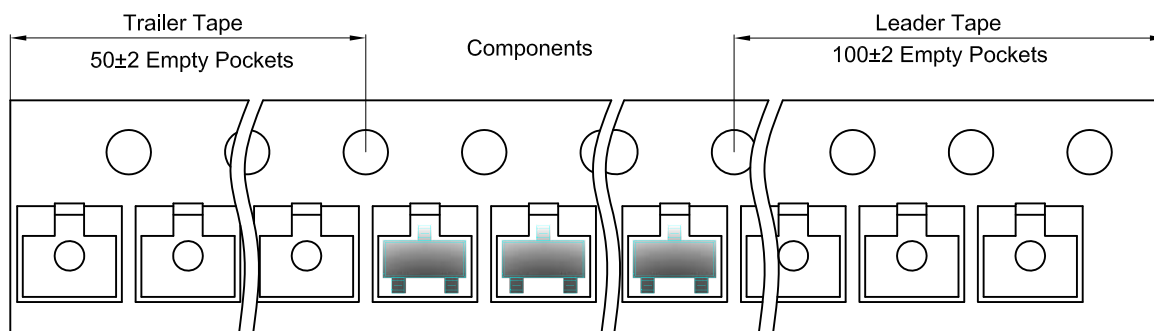
## SOT-23 Tape and Reel

### SOT-23 Embossed Carrier Tape

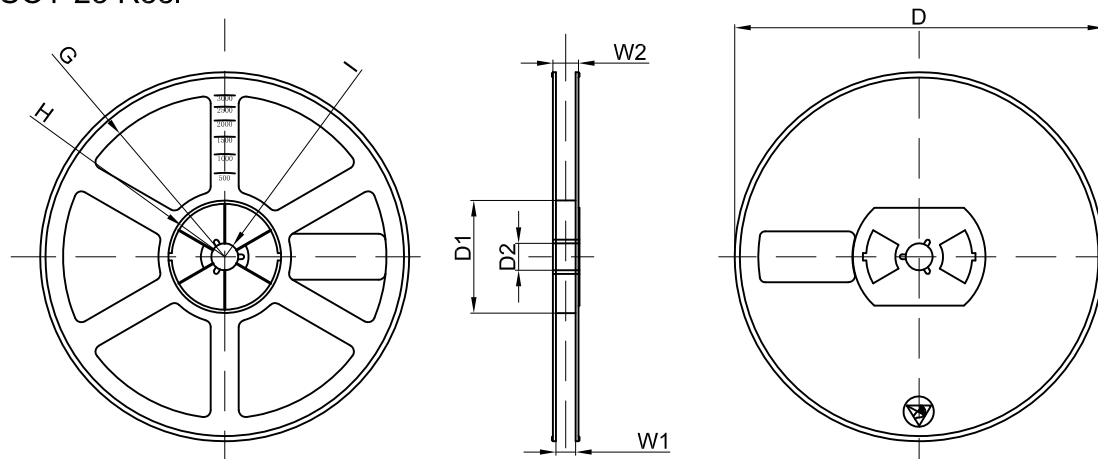


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

### SOT-23 Tape Leader and Trailer

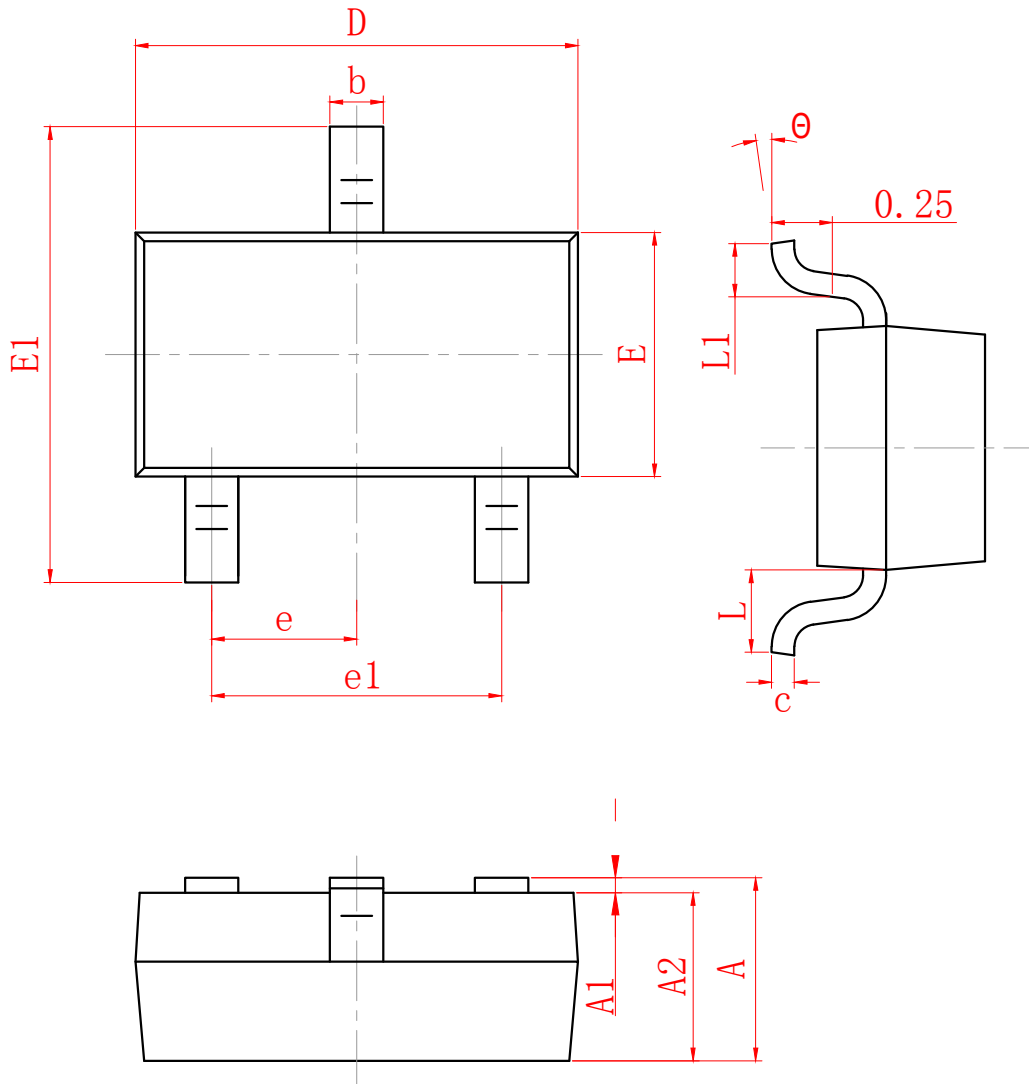


### SOT-23 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950 TYP	
e1	1.800	2.000
L	0.550 REF	
L1	0.300	0.500
$\theta$	0°	8°

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