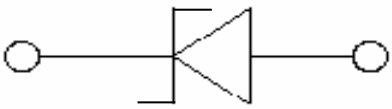
Zener Diode



Features

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

Mechanical Data

- **Package**: SOD523
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	VALUE
Power Dissipation at Ta=25	P_D	mW	200
Storage Temperature Range	T_{stg}	°C	-55~+150
Maximum Junction Temperature	T_J	°C	-55~+150
Maximum Regulator Current	I_{ZM}	mA	P_D/ V_z
Forward Voltage(@10mA)	V_F	V	1.0
Thermal Resistance Junction to Ambient Air*	$R_{\theta JA}$	°C /W	625

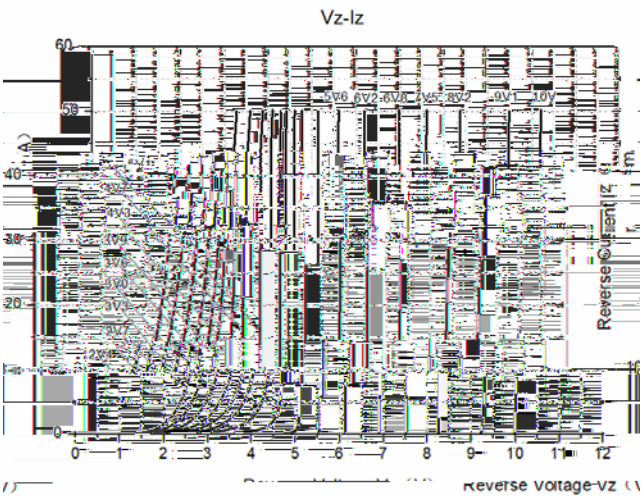
■Ordering Information (Example)

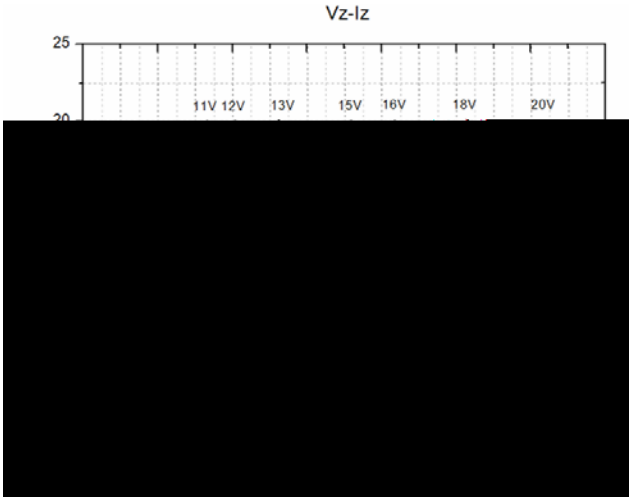
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZX584C2V4 THRU BZX584C75V	F2	Approximate 0.002	8000	80000	320000	7” reel

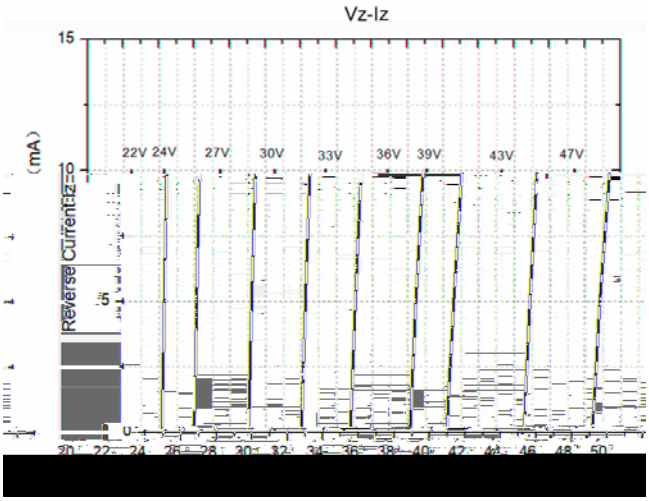
■**Electrical Characteristics** T_a=25 Unless otherwise specified

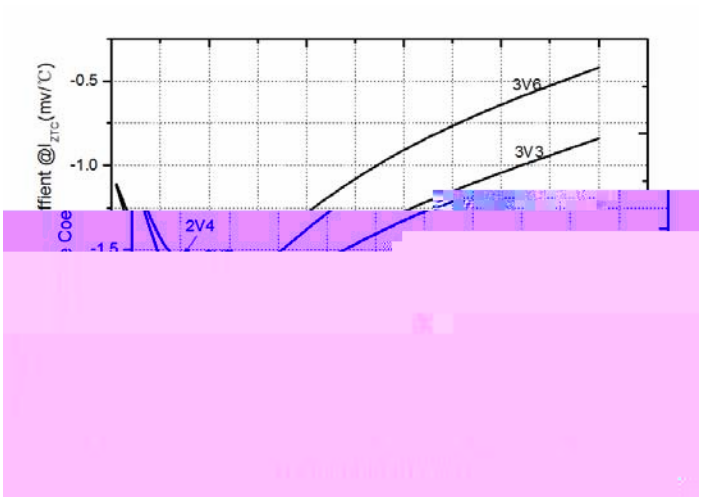
Type Number	Device Marking	V_z at IzT (V)			Z_{zt}(Ω)		Z_{zk}(Ω)		I_R(μA)@V_R	
		min.	typ.	max.	I_{ZT}(mA)	max.	I_{zk}(mA)	max.	max	V_R(V)
BZX584C2V4	50	2.28	2.4	2.52	5	100	1	1000	50	1
BZX584C2V7	51	2.57	2.7	2.84	5	100	1	1000	20	1
BZX584C3V0	52	2.85	3	3.15	5	100	1	1000	10	1
BZX584C3V3	53	3.14	3.3	3.47	5	95	1	1000	5	1
BZX584C3V6	54	3.42	3.6	3.78	5	90	1	1000	5	1
BZX584C3V9	55	3.71	3.9	4.1	5	90	1	1000	3	1
BZX584C4V3	56	4.09	4.3	4.52	5	90	1	1000	3	1
BZX584C4V7	57	4.47	4.7	4.94	5	80	1	800	3	2
BZX584C5V1	58	4.85	5.1	5.36	5	60	1	500	2	2
BZX584C5V6	59	5.32	5.6	5.88	5	40	1	200	1	2
BZX584C6V2	5A	5.8	6.2	6.6	5	10	1	100	3	4
BZX584C6V8	5B	6.4	6.8	7.2	5	15	1	160	2	4
BZX584C7V5	5C	7	7.5	7.9	5	15	1	160	1	5
BZX584C8V2	5D	7.7	8.2	8.7	5	15	1	160	0.7	5
BZX584C9V1	5E	8.5	9.1	9.6	5	15	1	160	0.2	7
BZX584C10V	5F	9.4	10	10.6	5	20	1	160	0.1	8
BZX584C11V	5G	10.4	11	11.6	5	20	1	160	0.1	8
BZX584C12V	5H	11.4	12	12.7	5	25	1	80	0.1	8
BZX584C13V	5J	12.4	13	14.1	5	30	1	80	0.1	8
BZX584C15V	5K	14.3	15	15.6	5	30	1	80	0.05	10.5
BZX584C16V	5L	15.3	16	17.1	5	40	1	80	0.05	11.2
BZX584C18V	5M	16.8	18	19.1	5	45	1	80	0.05	12.6
BZX584C20V	5N	18.8	20	21.2	5	55	1	100	0.05	14
BZX584C22V	5P	20.8	22	23.3	5	55	1	100	0.05	15.4
BZX584C24V	5R	22.8	24	25.6	5	70	1	120	0.05	16.8
BZX584C27V	5S	25.1	27	28.9	2	80	0.5	300	0.05	18.9
BZX584C30V	5T	28	30	32	2	80	0.5	300	0.05	21
BZX584C33V	5U	31	33	35	2	80	0.5	300	0.05	23.2
BZX584C36V	5V	34	36	38	2	90	0.5	500	0.05	25.2
BZX584C39V	5X	37	39	41	2	130	0.5	500	0.05	27.3
BZX584C43V	5Y	40	43	46	2	150	0.5	500	0.05	30.1
BZX584C47V	5Z	44	47	50	2	170	0.5	500	0.05	32.9
BZX584C51V	Y17	48	51	54	2	180	0.5	400	0.05	35.7
BZX584C56V	Y18	53	56	59	2	200	1	1000	0.1	42
BZX584C62V	Y19	58	62	66	2	215	0.5	450	0.05	43.4
BZX584C68V	Y20	64	68	72	2	240	0.5	475	0.05	47.6
BZX584C75V	Y21	70	75	79	2	255	0.5	500	0.05	52.5

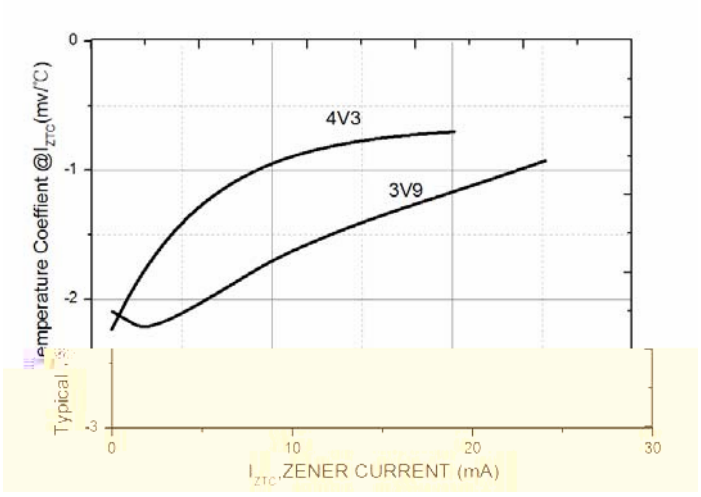
■ **Characteristics** (Typical)

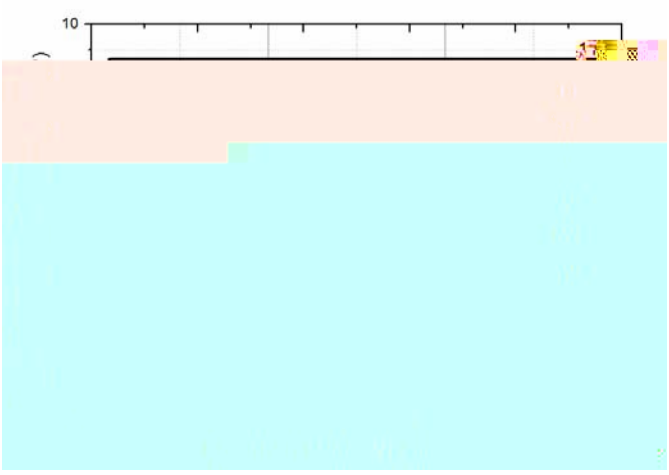


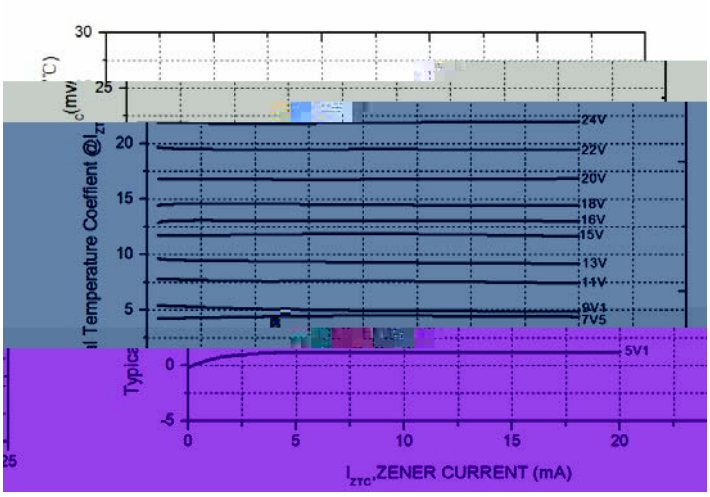


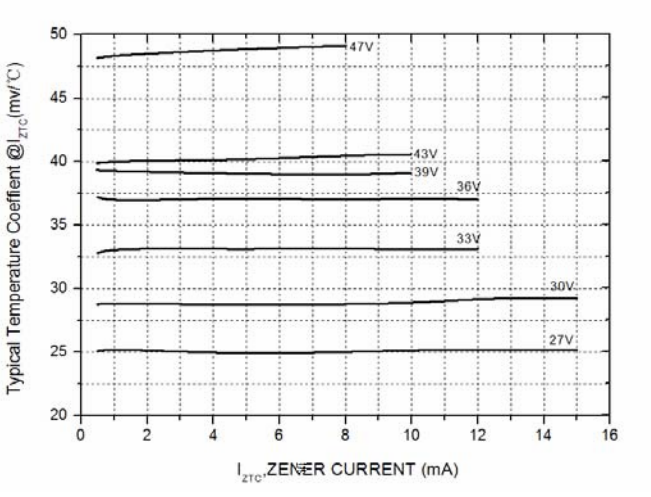


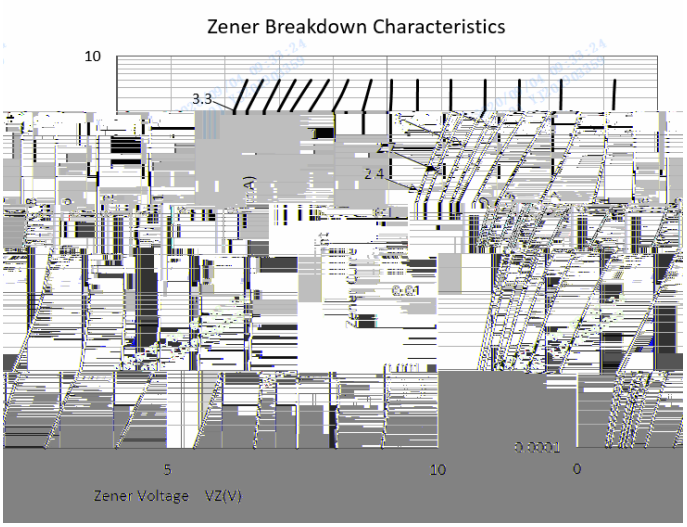


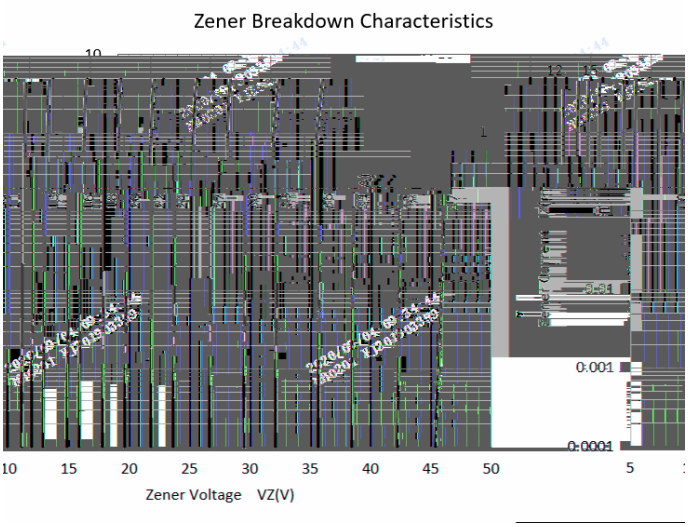




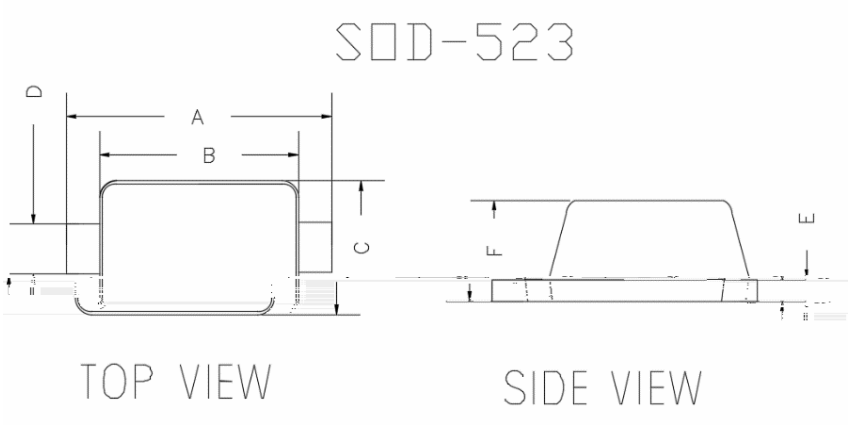

24V
22V
20V
18V
16V
15V
13V
14V
9V1
7V5
5V1
I_ZTC,ZENER CURRENT (mA)


47V
43V
39V
36V
33V
30V
27V
Typical Temperature Coeffient @I_ZTC (mv/℃)
I_ZTC,ZENER CURRENT (mA)


Zener Breakdown Characteristics
Zener Voltage VZ(V)

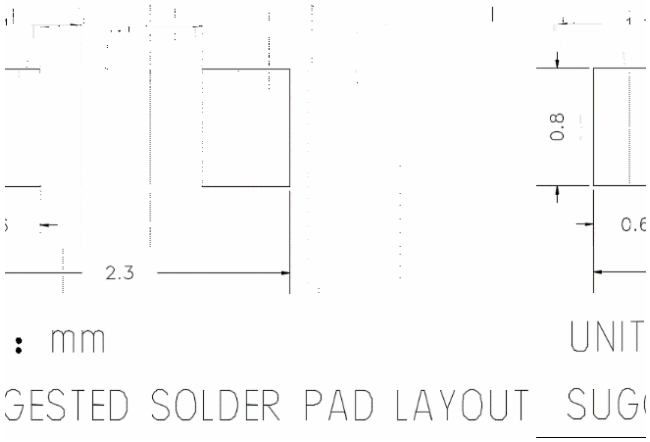

Zener Breakdown Characteristics
Zener Voltage VZ(V)

■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MN	MAX
A	0.059	0.067	1.500	1.700
B	0.043	0.051	1.100	1.300
C	0.028	0.035	0.700	0.900
D	0.010	0.014	0.250	0.350
E	0.002	0.008	0.050	0.200
F	0.020	0.028	0.500	0.700

■ Soldering Footprint



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