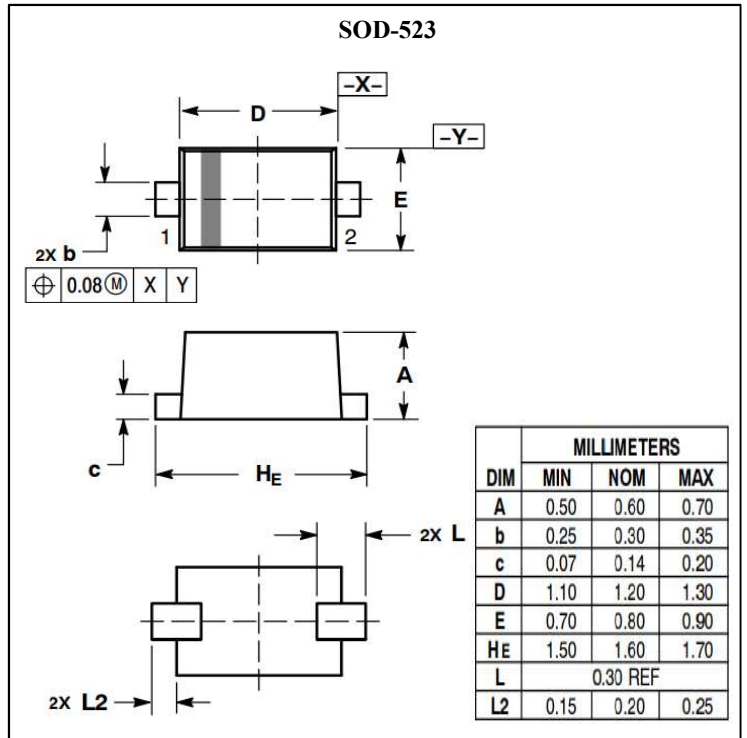
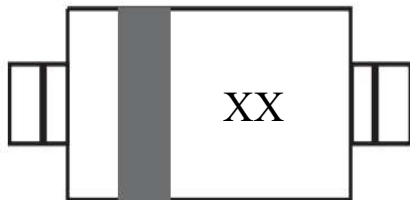


**Zener Voltage Regulators**  
**200mW Surface Mount Zener Diodes**
**Features**

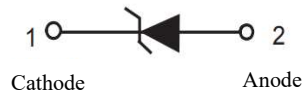
- Standard Zener Breakdown Voltage Range – 2.4 V to 36 V
- Steady State Power Rating of 200 mW
- ESD Rating of Class 3 per Human Body Model
- Pb-Free package is available.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.
- We declare that the material of product complies with RoHS requirements

**Mechanical Data**

- Case : Void-free, transfer-molded plastic
- Finish : All external surface corrosion resistant
- Maximum Case Temperature for Soldering Purposes : 260°C for 10 Seconds
- Polarity : Cathode indicated by polarity band
- Flammability Rating : UL 94 V-0
- Mounting Position : Any


**Marking**


XX = Specific Device Code


**Maximum Ratings** (Ta=25°C unless otherwise noted)

Parameter	Symbol	Rated Value	Unit	Remark
Power Dissipation	P <sub>D</sub>	200	mW	
Thermal resistance J <sub>Enction</sub> to Ambient	R <sub>th(j-a)</sub>	635	°C/W	
Operating J <sub>Enction</sub> Temperature Range	T <sub>J</sub>	-55 to +150	°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C	

**Electrical Characteristics** ( $T_a=25^{\circ}\text{C}$  unless otherwise noted,  $V_F=0.9\text{V}$  Max. @ $I_F=10\text{mA}$  for all types)

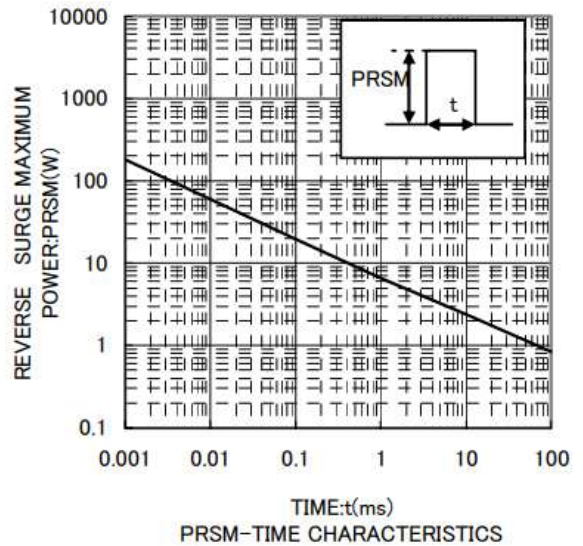
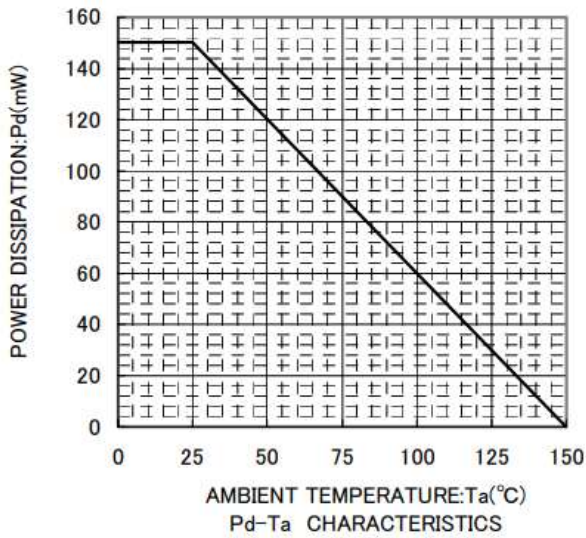
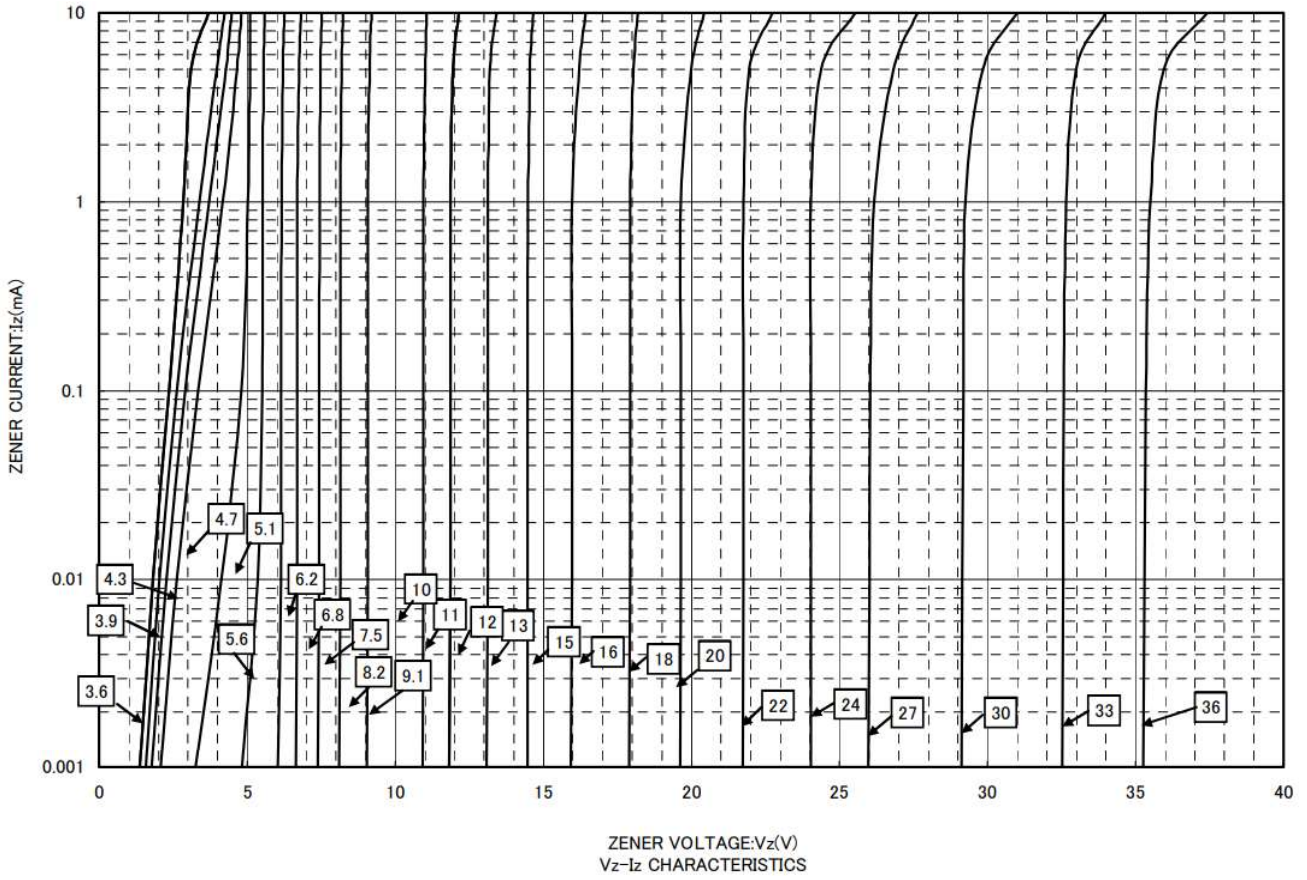
Device	Device Marking	Zener Voltage (Note 3 and 4)			Zener Impedance (Note 5)			Leakage Current $I_R @ V_R$	
		$V_Z$ (Volts)		@ $I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		uA	Volts
		Min	Max	mA	$\Omega$	$\Omega$	mA		
LEDZS2.4BT1G	22	2.43	2.63	5.0	100	1000	0.5	100	1.0
LEDZS2.7BT1G	32	2.69	2.91	5.0	110	1000	0.5	100	1.0
LEDZS3.0BT1G	42	3.01	3.22	5.0	120	1000	0.5	50	1.0
LEDZS3.3BT1G	52	3.32	3.53	5.0	120	1000	0.5	20	1.0
LEDZS3.6BT1G	62	3.60	3.85	5.0	100	1000	1.0	10	1.0
LEDZS3.9BT1G	72	3.89	4.16	5.0	100	1000	1.0	5.0	1.0
LEDZS4.3BT1G	82	4.17	4.43	5.0	100	1000	1.0	5.0	1.0
LEDZS4.7BT1G	92	4.55	4.75	5.0	100	800	0.5	2.0	1.0
LEDZS5.1BT1G	A2	4.98	5.20	5.0	80	500	0.5	2.0	1.5
LEDZS5.6BT1G	C2	5.49	5.73	5.0	60	200	0.5	1.0	2.5
LEDZS6.2BT1G	E2	6.06	6.33	5.0	60	100	0.5	1.0	3.0
LEDZS6.8BT1G	F2	6.65	6.93	5.0	40	60	0.5	0.5	3.5
LEDZS7.5BT1G	H2	7.28	7.60	5.0	30	60	0.5	0.5	4.0
LEDZS8.2BT1G	J2	8.02	8.36	5.0	30	60	0.5	0.5	5.0
LEDZS9.1BT1G	L2	8.85	9.23	5.0	30	60	0.5	0.5	6.0
LEDZS10BT1G	05	9.77	10.21	5.0	30	60	0.5	0.1	7.0
LEDZS11BT1G	15	10.76	11.22	5.0	30	60	0.5	0.1	8.0
LEDZS12BT1G	25	11.74	12.24	5.0	30	80	0.5	0.1	9.0
LEDZS13BT1G	35	12.91	13.49	5.0	37	80	0.5	0.1	10.0
LEDZS15BT1G	45	14.34	14.98	5.0	42	80	0.5	0.1	11.0
LEDZS16BT1G	55	15.85	16.51	5.0	50	80	0.5	0.1	12.0
LEDZS18BT1G	65	17.56	18.35	5.0	65	80	0.5	0.1	13.0
LEDZS20BT1G	75	19.52	20.39	5.0	85	100	0.5	0.1	15.0
LEDZS22BT1G	85	21.54	22.47	5.0	100	100	0.5	0.1	17.0
LEDZS24BT1G	95	23.72	24.78	5.0	120	120	0.5	0.1	19.0
LEDZS27BT1G	A5	26.19	27.53	5.0	150	150	0.5	0.1	21.0
LEDZS30BT1G	C5	29.19	30.69	5.0	200	200	0.5	0.1	23.0
LEDZS33BT1G	E5	32.15	33.79	5.0	250	250	0.5	0.1	25.0
LEDZS36BT1G	F5	35.07	36.87	5.0	300	300	0.5	0.1	27.0

Notes) 1. The Zener voltage ( $V_Z$ ) is measured 40ms after power is supplied.

2. The operating resistances ( $Z_Z, Z_{ZK}$ ) are measured by superimposing a minute alternating current on the regulated current ( $I_Z$ ).

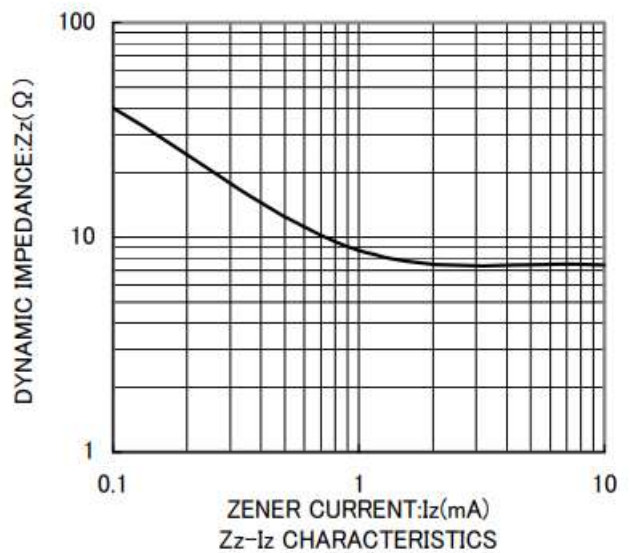
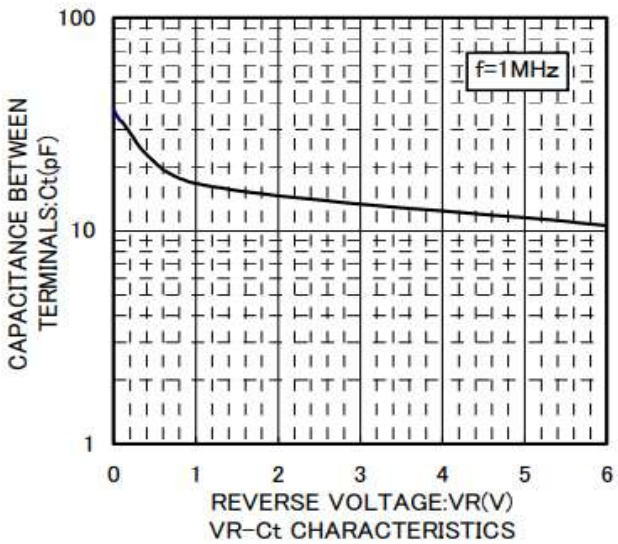
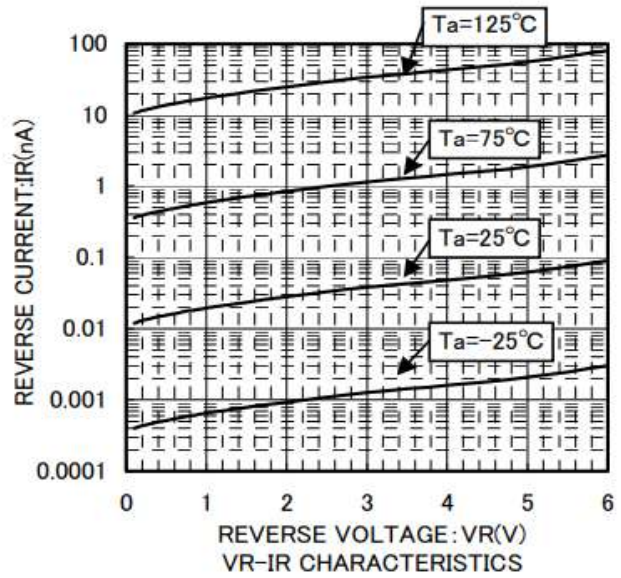
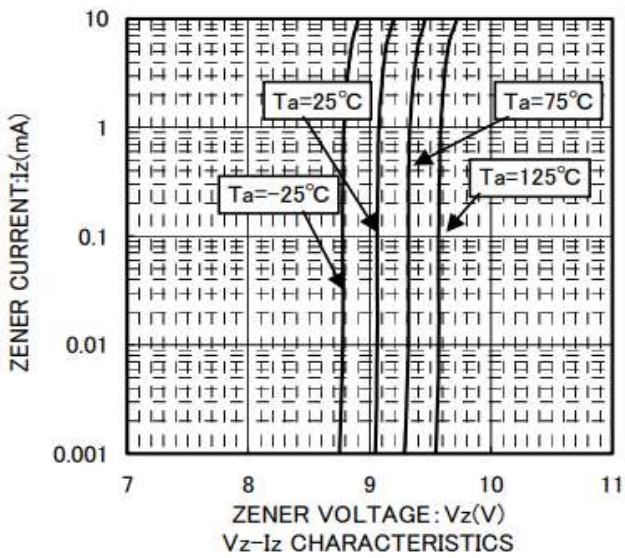
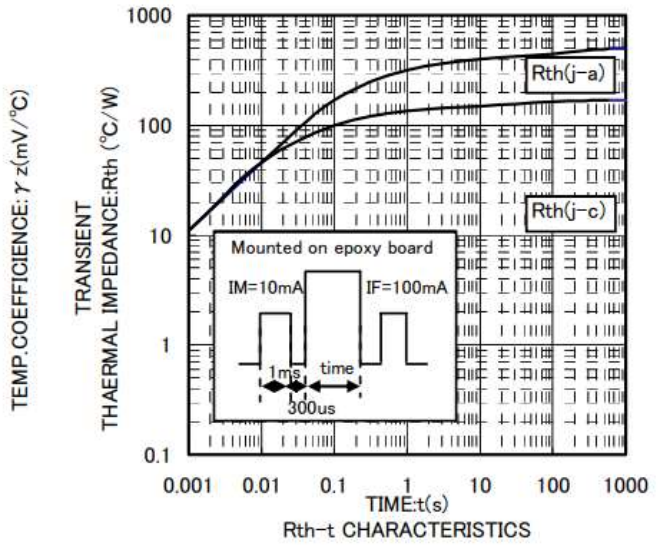
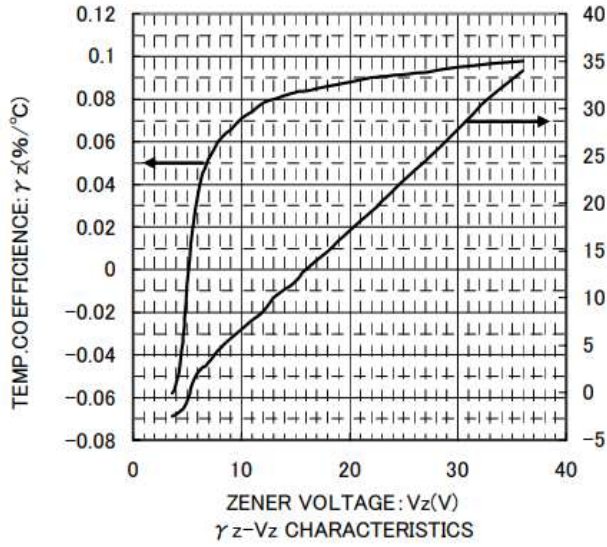


Electrical Characteristics Curves (Ta=25°C unless otherwise noted)



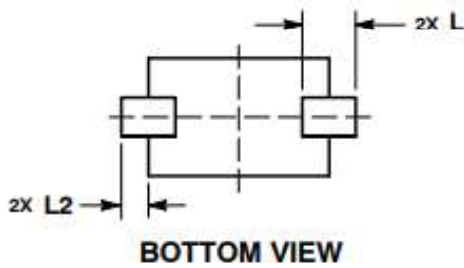
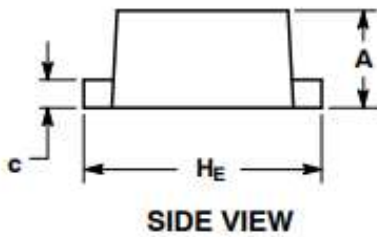
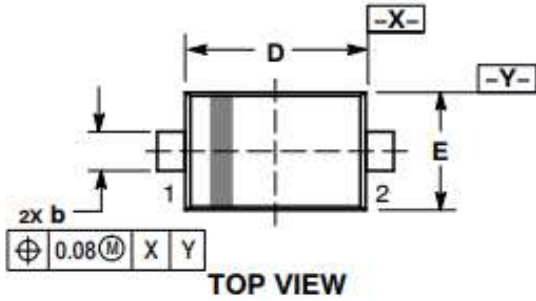


Electrical Characteristics Curves (Ta=25°C unless otherwise noted)

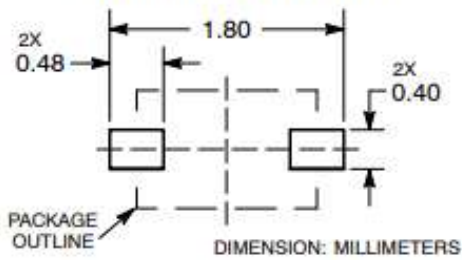




SOD-523/SC-79



**RECOMMENDED  
SOLDERING FOOTPRINT\***



**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM	MILLIMETERS		
	MIN	NOM	MAX
A	0.50	0.60	0.70
b	0.25	0.30	0.35
c	0.07	0.14	0.20
D	1.10	1.20	1.30
E	0.70	0.80	0.90
HE	1.50	1.60	1.70
L	0.30 REF		
L2	0.15	0.20	0.25