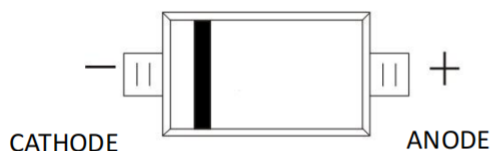


Features

- Low Zener Impedance
- Power Dissipation of 200mW
- High Stability and High Reliability
- Halogen free and RoHS compliant
- SOD323 surface mount package

Applications

- General voltage regulation
- Mobile & handheld systems
- Household Electric Appliances
- Industrial automation
- communication field



SOD323



Pin Configuration

Maximum Ratings& Thermal Characteristics

(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward Voltage @ IF=10mA	VF	0.9	V
Power Dissipation	PD	200	mW
Thermal Resistance (Junction-to-Ambient)	RθJA	556	°C/W
Thermal Resistance (Junction-to-Case)	RθJC	417	°C/W
Junction Temperature Range	TJ	150	°C
Storage Temperature Range	TSTG	-55 ~ +150	°C

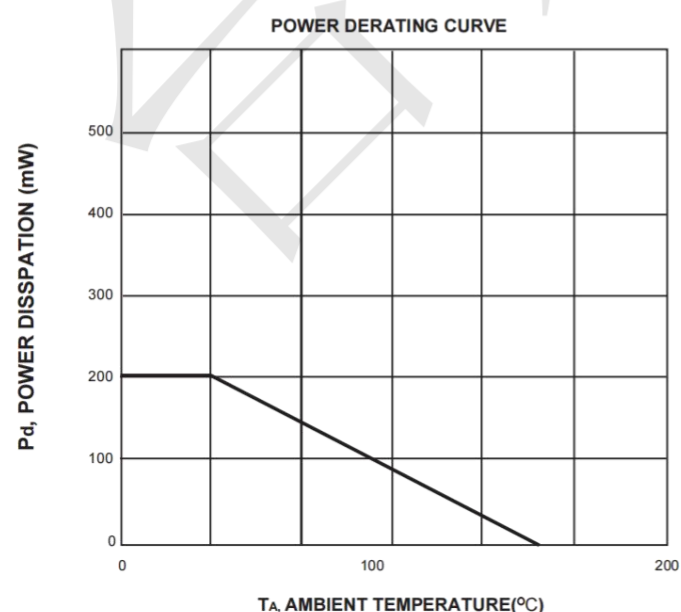
Electrical Characteristics (TA=25°C unless otherwise specified)

DEVICE	VZ(V) @ IZ=5mA			ZZ @ IZ = 1mA	ZZ @ IZ = 5mA	ZZ @ IZ = 20mA	IR@VR	VR	Typical Temperature Coefficient(mV/ °C)@ IZ=5mA	
	MIN	NOM	MAX	Ω			uA	V	Min	Max
BZX384C2V4	2.28	2.4	2.60	600	100	50	50	1	-3.5	0
BZX384C2V7	2.57	2.7	2.90	600	100	50	20	1	-3.5	0
BZX384C3V0	2.85	3.0	3.15	600	95	50	10	1	-3.5	0
BZX384C3V3	3.14	3.3	3.47	600	95	40	5	1	-3.5	0
BZX384C3V6	3.42	3.6	3.78	600	90	40	5	1	-3.5	0
BZX384C3V9	3.71	3.9	4.09	600	90	30	0.5	1	-3.5	0
BZX384C4V3	4.09	4.3	4.52	600	90	30	0.5	1	-3.5	0
BZX384C4V7	4.47	4.7	4.94	500	80	15	3.0	2	-3.5	0.2
BZX384C5V1	4.85	5.1	5.36	480	60	15	2.0	2	-2.7	1.2
BZX384C5V6	5.32	5.6	5.88	400	40	10	1.0	2	-2	2.5
BZX384C6V2	5.89	6.2	6.51	150	9.5	5.7	2.4	4	0.4	3.7
BZX384C6V8	6.46	6.8	7.14	76	14.2	5.7	1.6	4	1.2	4.5
BZX384C7V5	7.13	7.5	7.88	76	14.2	5.7	0.8	5	2.5	5.3
BZX384C8V2	7.79	8.2	8.61	76	14.2	5.7	0.56	5	3.2	6.2
BZX384C9V1	8.65	9.1	9.56	95	14.2	7.6	0.4	7	3.8	7.0
BZX384C10	9.50	10	10.50	142.5	19	9.5	0.1	8	4.5	8.0
BZX384C11	10.45	11	11.55	142.5	19	9.5	0.1	8	5.4	9.0
BZX384C12	11.4	12	12.60	150	23.7	9.5	0.1	8	6.0	10.0
BZX384C13	12.35	13	13.65	190	28.5	14.2	0.1	8	7.0	11.0
BZX384C15	14.25	15	15.75	190	28.5	19	0.1	11	9.2	13.0
BZX384C16	15.2	16	16.80	190	38	19	0.1	11	10.4	14.0
BZX384C18	17.10	18	18.90	213	42.7	19	0.1	13	12.4	16.0
BZX384C20	19.0	20	21.0	213	52.2	19	0.1	14	14.4	18.0
BZX384C22	20.9	22	23.10	237	52.2	23.7	0.1	15	16.4	20.0

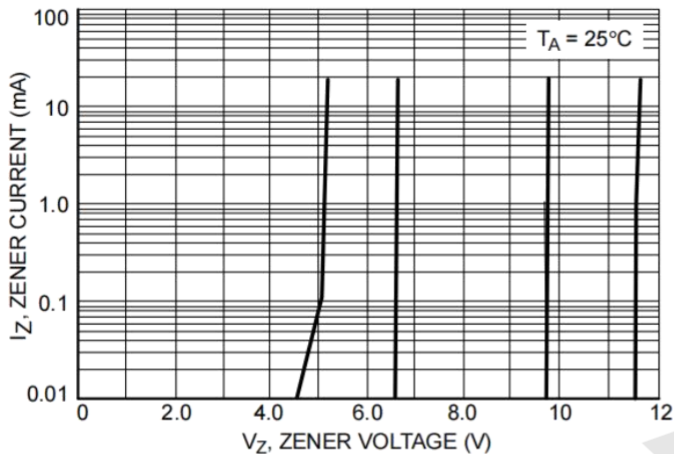
Electrical Characteristics (TA=25°C unless otherwise specified)

DEVICE	VZ(V) @ IZ=5mA			ZZ @ IZ = 1mA	ZZ @ IZ = 5mA	ZZ @ IZ = 20mA	IR@VR	VR	Typical Temperature Coefficient(mV/ °C)@ IZ=5mA	
	MIN	NOM	MAX	Ω			uA	V	Min	Max
BZX384C24	22.8	24	25.2	250	66.5	23.7	0.1	17	18.4	22.0
BZX384C27	25.65	27	28.35	295	75	43	0.04	19	21.4	25.3
BZX384C30	28.50	30	31.50	295	75	48	0.04	21	24.4	29.4
BZX384C33	31.35	33	34.65	320	75	53	0.04	23	27.4	33.4
BZX384C36	34.20	36	37.80	345	85	58	0.04	25	30.4	37.4
BZX384C39	37.05	39	40.95	345	125	68	0.04	27	33.4	41.2
BZX384C43	40.85	43	45.15	370	145	78	0.04	30	37.6	46.6
BZX384C47	44.65	47	49.35	370	165	88	0.04	33	42.0	51.8
BZX384C51	48.45	51	53.55	395	175	98	0.04	36	46.6	57.2
BZX384C56	52.2	56	58.8	420	195	108	0.04	39	52.2	63.8
BZX384C62	58.9	62	65.1	445	210	118	0.04	43	58.8	71.6
BZX384C68	64.6	68	71.4	470	235	128	0.04	48	65.6	79.8
BZX384C75	71.25	75	78.75	495	250	138	0.04	53	73.4	88.6

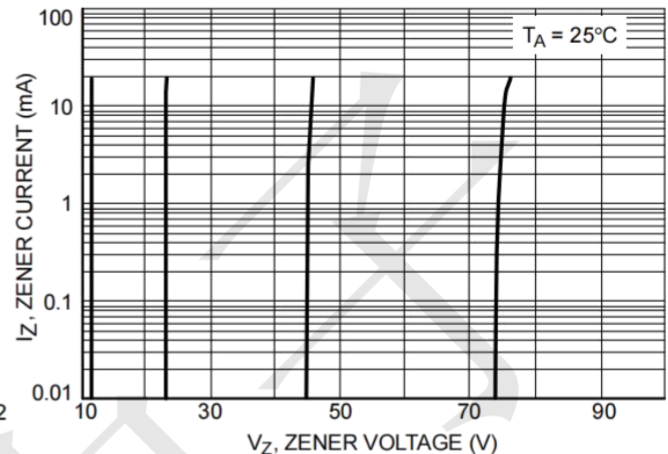
Typical Characteristics Curves



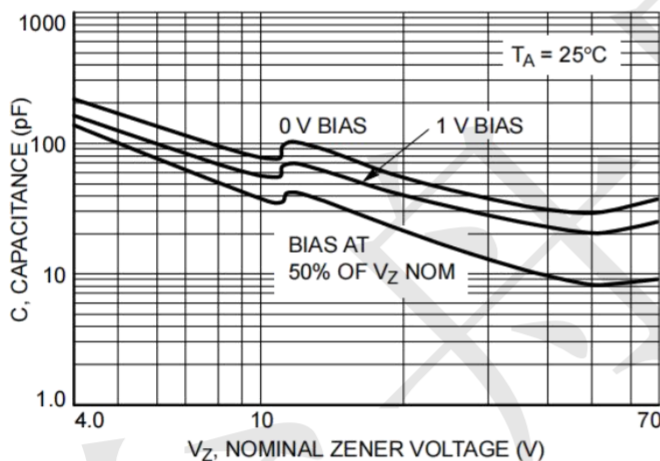
Typical Characteristics Curves



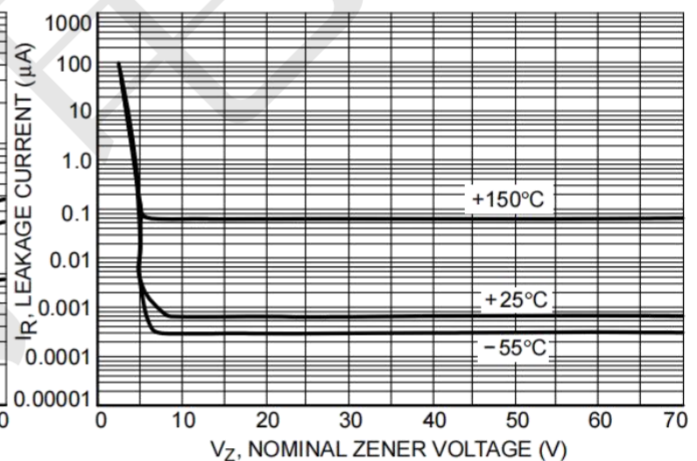
Zener Voltage versus Zener Current
(V_Z Up to 12 V)



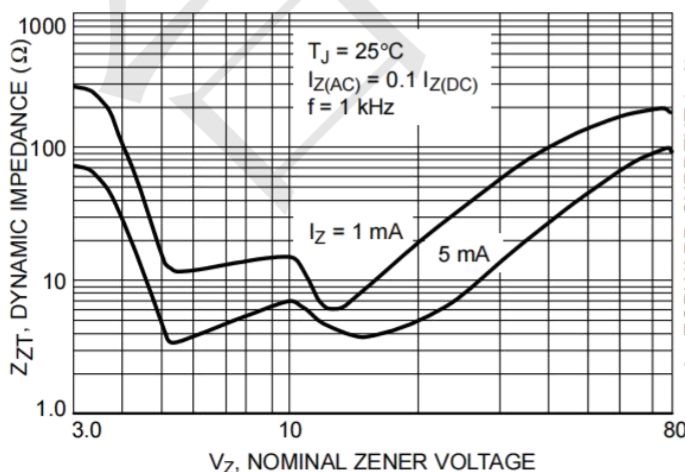
Zener Voltage versus Zener Current
(12 V to 75 V)



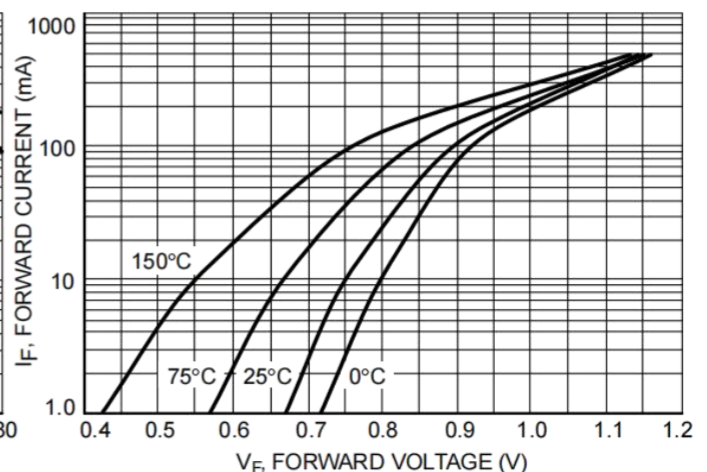
Typical Capacitance



Typical Leakage Current



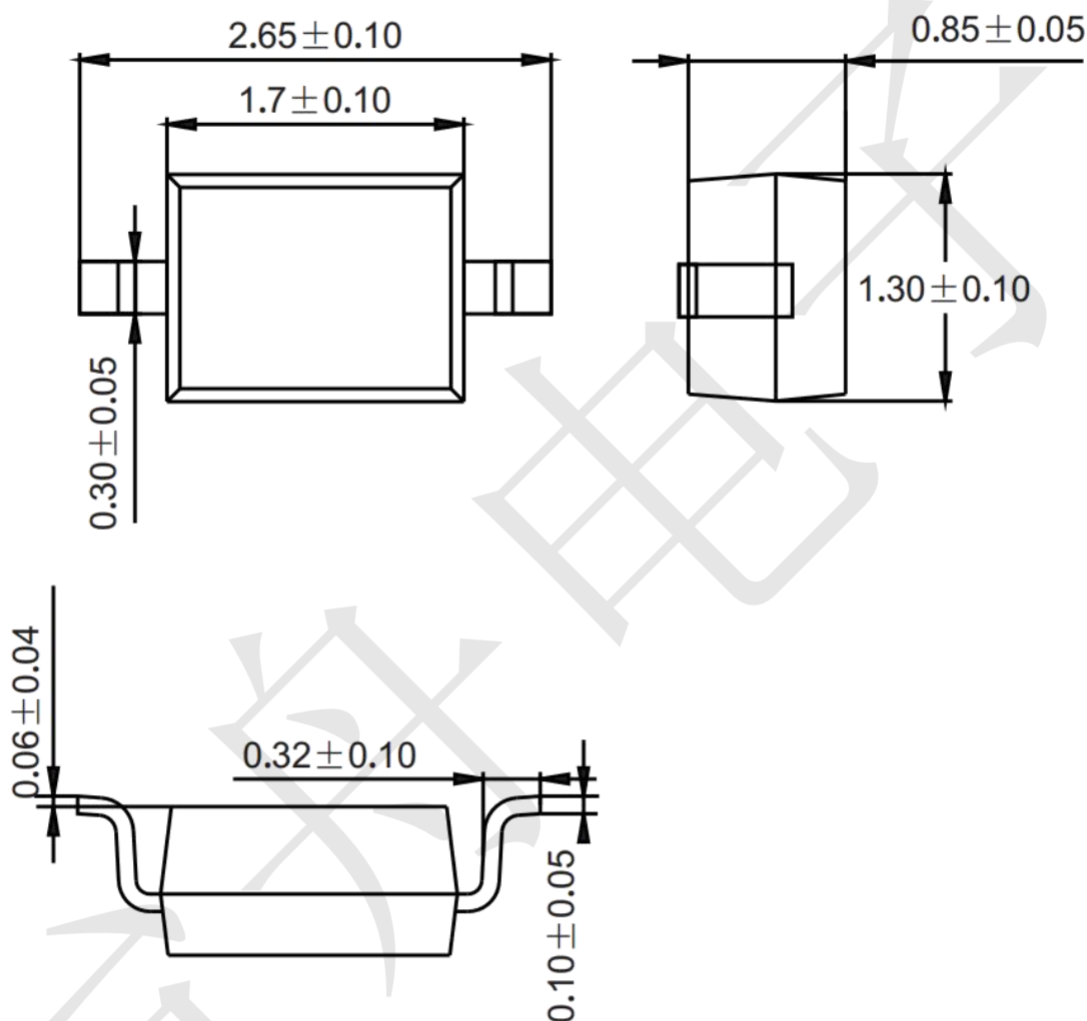
Effect of Zener Voltage on Zener Impedance



Typical Forward Voltage

Package Outline Dimensions (unit: mm)

SOD323



Mounting Pad Layout (unit: mm)

