

SOD-523 Plastic-Encapsulate Diode

Features

- Planar Die Construction
- 150mW Power Dissipation
- Zener Voltages From 5.1 – 20V

Mechanical Data

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any



RoHS
COMPLIANT



Marking: T4 SOD-523

Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Power Dissipation (Note 1)	P _D	150	mW
Forward Voltage @I _F =10mA	V _F	0.9	V
Junction temperature	T _J	150	°C
Storage temperature range	T _{STG}	-55-+150	°C
Thermal Resistance from Junction to Ambient	R _{θJA}	833	°C/W

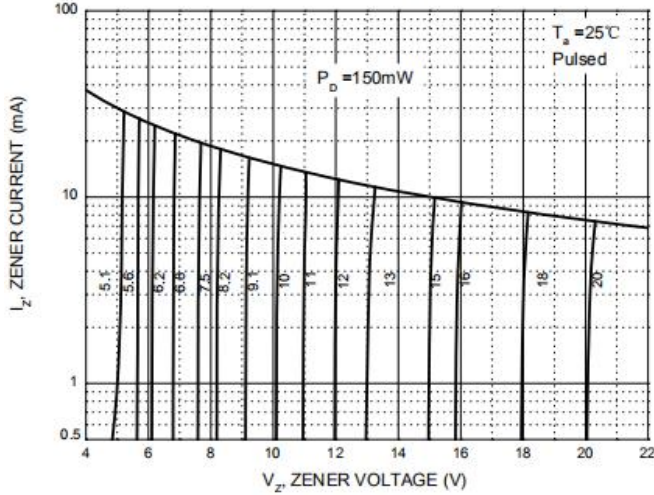
Electrical Characteristics (TA = 25 °C unless otherwise noted)

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum zener impedance			Maximum reverse Current I _R (μA)	Typical Temperature Coefficient @I _{ZT} =5 mA mV/°C		
		AVE	Min	Max	I _{ZT} (mA)	Z _{ZT} at I _{ZT} (Ω)	Z _{ZK} at I _{ZK} (Ω)	I _{ZK} (mA)		V _{R V}	Min	Max
BZX584B5V1	2Z2	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2
BZX584B5V6	2Z3	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5
BZX584B6V2	2Z4	6.2	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7
BZX584B6V8	2Z5	6.8	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5
BZX584B7V5	2Z6	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3
BZX584B8V2	2Z7	8.2	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2
BZX584B9V1	2Z8	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0
BZX584B10	2Z9	10	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0
BZX584B11	2Y1	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0
BZX584B12	2Y2	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0
BZX584B13	2Y3	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0
BZX584B15	2Y4	15	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0
BZX584B16	2Y5	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0
BZX584B18	2Y6	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0
BZX584B20	2Y7	20	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0

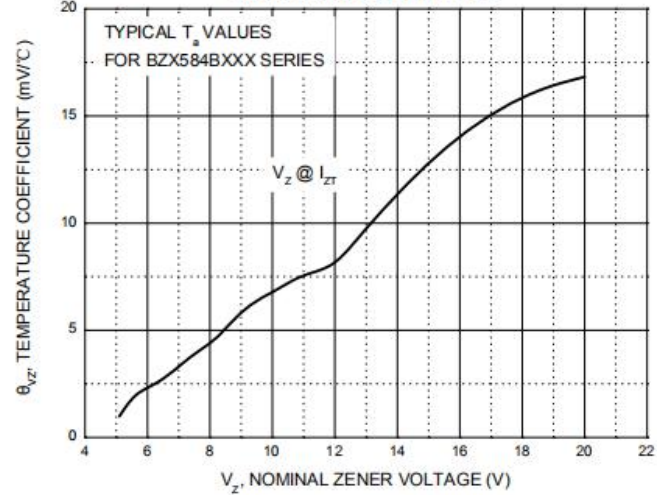
Ratings and Characteristics Curves

($T_a = 25^\circ\text{C}$ unless otherwise noted)

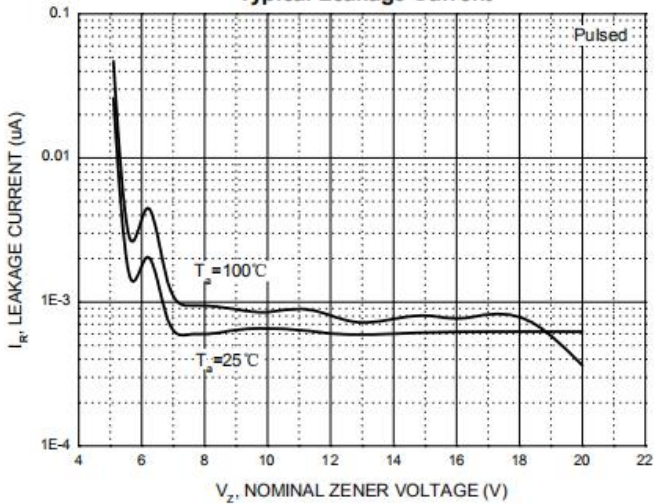
Zener Characteristics (V_z 5.1V to 20 V)



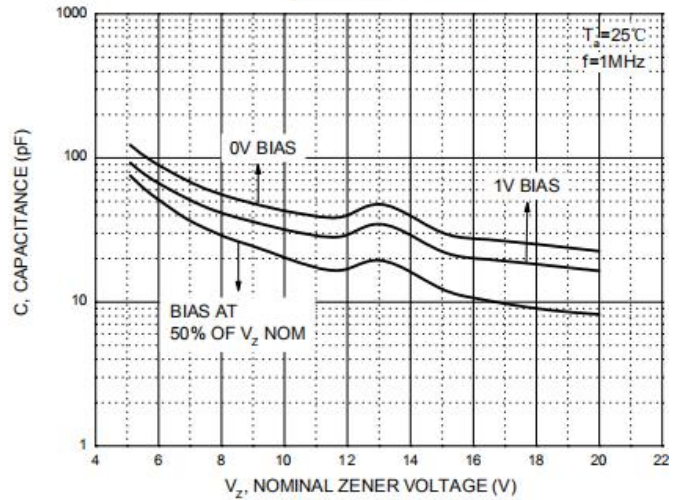
Temperature Coefficients



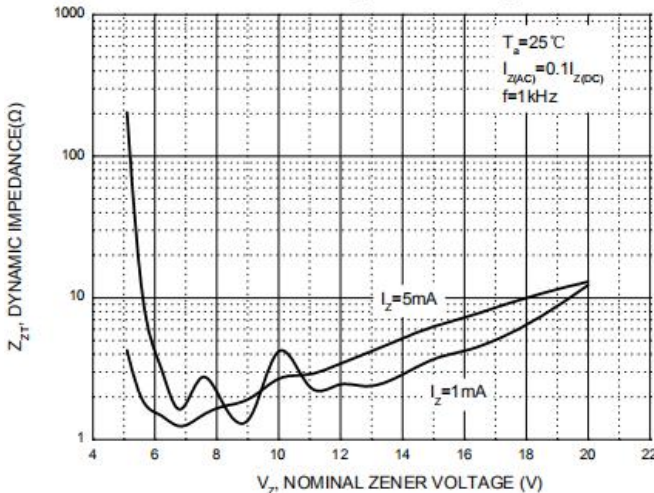
Typical Leakage Current



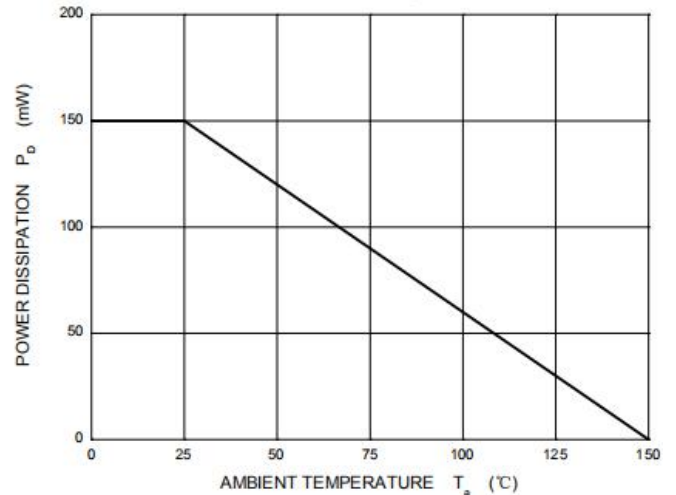
Typical Capacitance



Effect of Zener Voltage on Zener Impedance

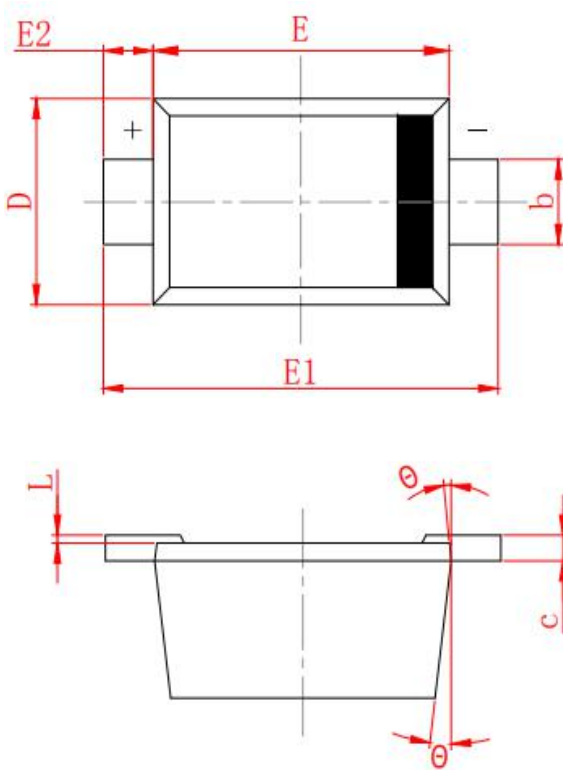


Power Derating Curve



Package Outline Dimensions

in inches (millimeters)



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
theta	7° REF	

Revision History

Document Version	Date of release	Description of changes
Rev.A	2020.07.21	First issue

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