



BZX584C2V4 THRU BZX584C43V

Surface Mount Zener Diode

Features

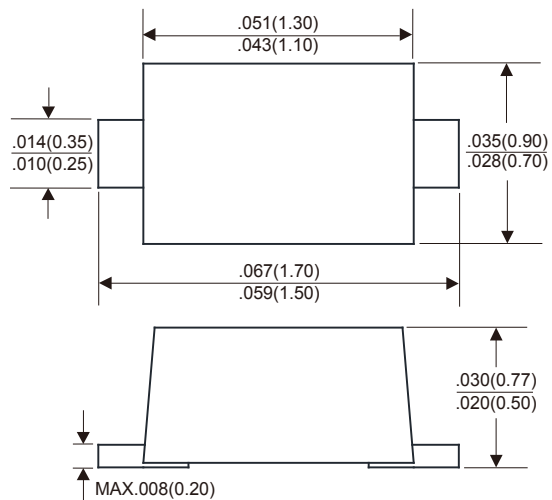
- ★ Small surface mount package
- ★ Ideally suited for automated assembly processes
- ★ Low zener impedance
- ★ High stability and high reliability

Mechanical Data

- ★ Case: Molded plastic, SOD-523FL
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202, method 208
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Zener Voltage 2.4 to 43 V
Power Dissipation 150 mW

SOD-523FL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$ unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	P_D	150	mW
Forward voltage @ $I_F=10\text{mA}$	V_F	0.9	V
Junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

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Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Part Number	Device Marking Code	Zener Voltage $V_Z@I_{ZT}$				Maximum Zener Impedance			Maximum Reverse Leakage Current $I_R@V_R$	
		Min (V)	Nom (V)	Max (V)	I_{ZT} (mA)	$Z_{ZT}@I_{ZT}$ (Ω)	$Z_{ZK}@I_{ZK}$ (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)
BZX584C2V4	Z11	2.2	2.4	2.6	5	100	600	1	50	1
BZX584C2V7	Z12	2.5	2.7	2.9	5	100	600	1	20	1
BZX584C3V0	Z13	2.8	3	3.2	5	95	600	1	10	1
BZX584C3V3	Z14	3.1	3.3	3.5	5	95	600	1	5	1
BZX584C3V6	Z15	3.4	3.6	3.8	5	90	600	1	5	1
BZX584C3V9	Z16	3.7	3.9	4.1	5	90	600	1	3	1
BZX584C4V3	Z17	4	4.3	4.6	5	90	600	1	3	1
BZX584C4V7	Z1	4.4	4.7	5	5	80	500	1	3	2
BZX584C5V1	Z2	4.8	5.1	5.4	5	60	480	1	2	2
BZX584C5V6	Z3	5.2	5.6	6	5	40	400	1	1	2
BZX584C6V2	Z4	5.8	6.2	6.6	5	10	150	1	3	4
BZX584C6V8	Z5	6.4	6.8	7.2	5	15	80	1	2	4
BZX584C7V5	Z6	7	7.5	7.9	5	15	80	1	1	5
BZX584C8V2	Z7	7.7	8.2	8.7	5	15	80	1	0.7	5
BZX584C9V1	Z8	8.5	9.1	9.6	5	15	100	1	0.5	6
BZX584C10V	Z9	9.4	10	10.6	5	20	150	1	0.2	7
BZX584C11V	Y1	10.4	11	11.6	5	20	150	1	0.1	8
BZX584C12V	Y2	11.4	12	12.7	5	25	150	1	0.1	8
BZX584C13V	Y3	12.4	13	14.1	5	30	170	1	0.1	8
BZX584C15V	Y4	13.8	15	15.6	5	30	200	1	0.1	10.5
BZX584C16V	Y5	15.3	16	17.1	5	40	200	1	0.1	11.2
BZX584C18V	Y6	16.8	18	19.1	5	45	225	1	0.1	12.6
BZX584C20V	Y7	18.8	20	21.2	5	55	225	1	0.1	14
BZX584C22V	Y8	20.8	22	23.3	5	55	250	1	0.1	15.4
BZX584C24V	Y9	22.8	24	25.6	5	70	250	1	0.1	16.8
BZX584C27V	Y10	25.1	27	28.9	2	80	300	0.5	0.1	18.9
BZX584C30V	Y11	28	30	32	2	80	300	0.5	0.1	21
BZX584C33V	Y12	31	33	35	2	80	325	0.5	0.1	23.1
BZX584C36V	Y13	34	36	38	2	90	350	0.5	0.1	25.2
BZX584C39V	Y14	37	39	41	2	130	350	0.5	0.1	27.3
BZX584C43V	Y15	40	43	46	2	100	700	1	0.1	32

Notes : (1) The Zener Voltage (V_Z) is tested under pulse condition of 10ms.

(2) The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

RATINGS AND CHARACTERISTICS CURVES BZX584C2V4 THRU BZX584C43V

Fig.1 - Power Derating Curve

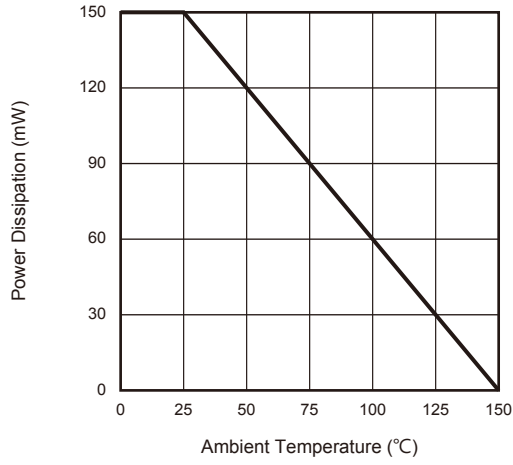


Fig.2 - Typical Forward Voltage

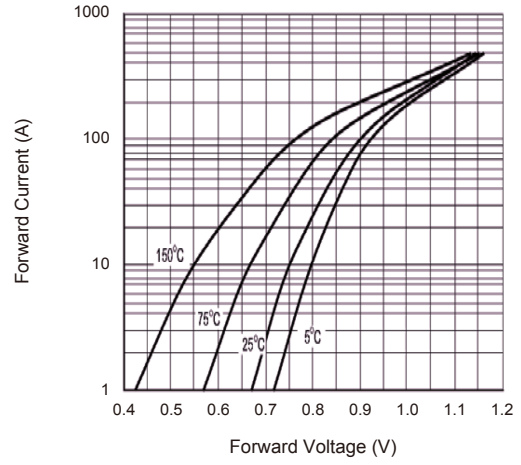


Fig.3 - Effect of Zener Voltage on Zener Impedance

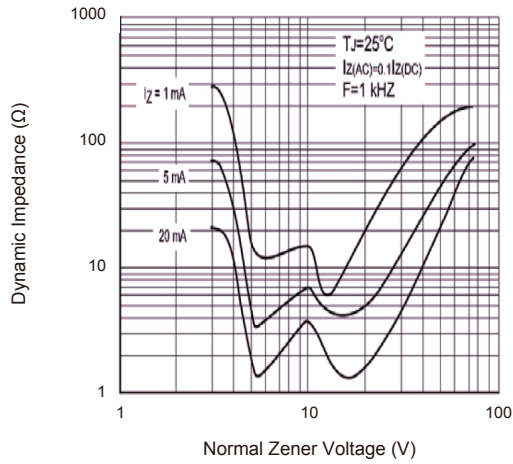


Fig.4 - Typical Capacitance

