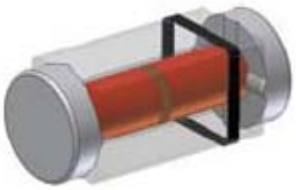
BZT55C- Series



Features:

- Zener voltage range 2.0 to 75 volts.
- Mini-MELF package.
- Surface device type mounting.
- Hermetically sealed glass.
- Compression Bonded Construction.
- All external surfaces are corrosion resistant and terminals are readily solderable.
- RoHS compliant.
- Matte Tin (Sn) lead finish.
- Blue color band indicates negative polarity.

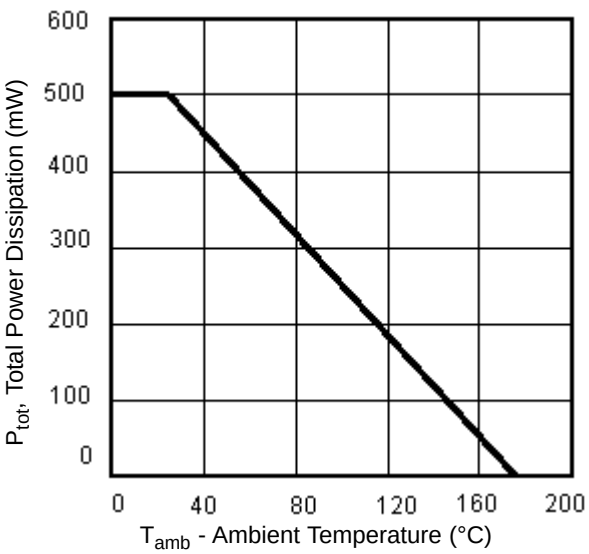
Maximum Ratings and Electrical Characteristics

Type Number	Symbol	Value	Units
Power Dissipation	P_D	500	mW
Operating and Storage Temperature Range	$T_{J,}\ T_{STG}$	-65 to + 200	°C

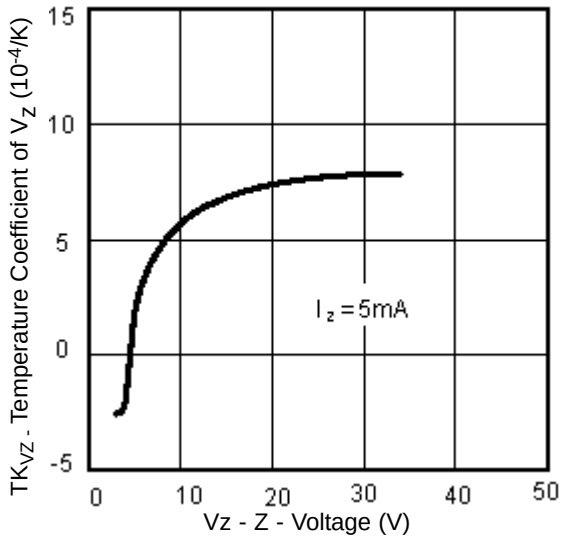
Notes : These ratings are limiting values above which the serviceability of the diode may be impaired.

Ratings and Characteristic Curves

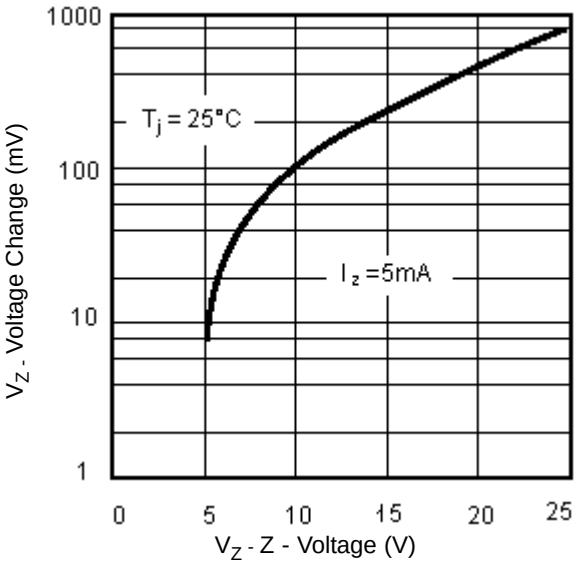
Total Power Dissipation vs. Ambient Temperature



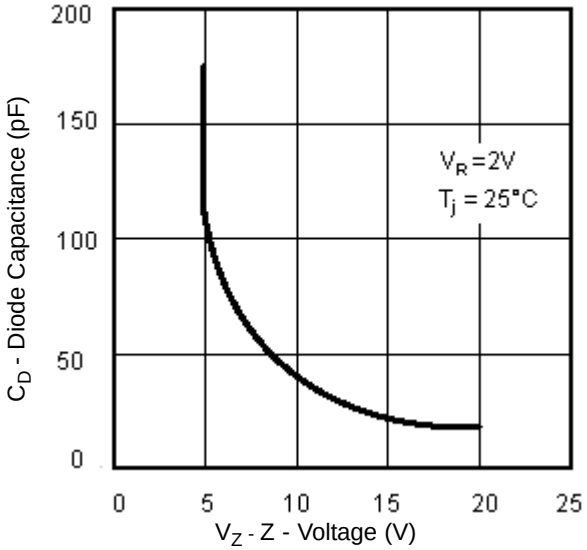
Temperature Coefficient of Vz vs. Z-Voltage



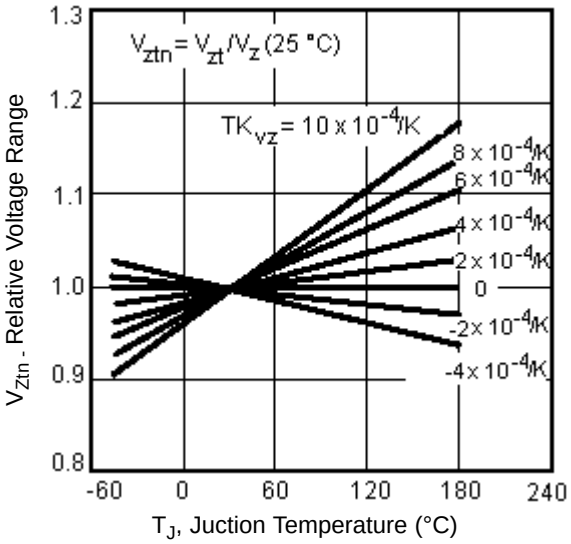
Typical Change of Working Voltage under Operating Conditions at T_{amb} = 25°C



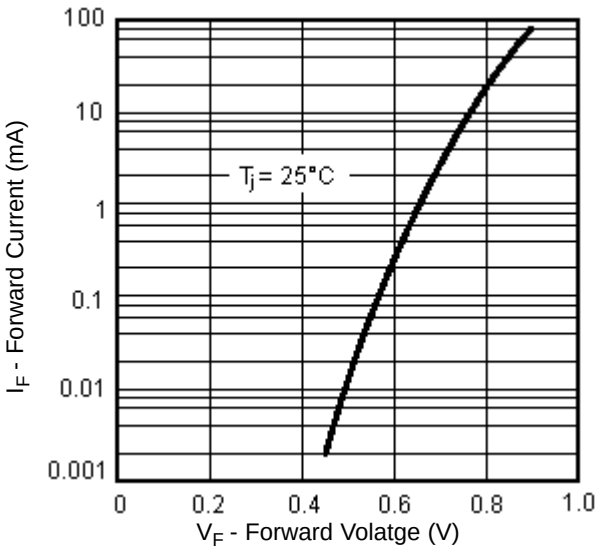
Diode Capacitance vs. Z - Voltage



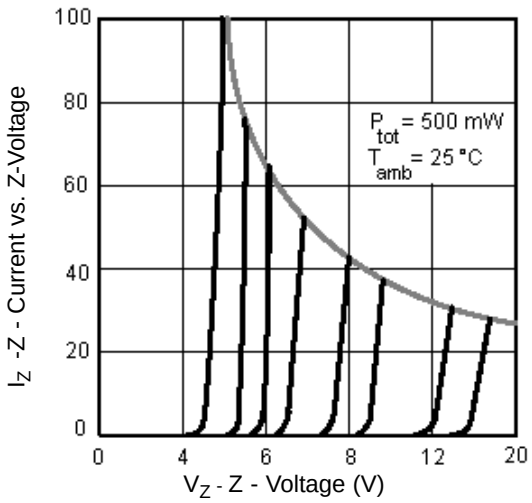
Typical Change of Working Voltage vs. Junction Temperature



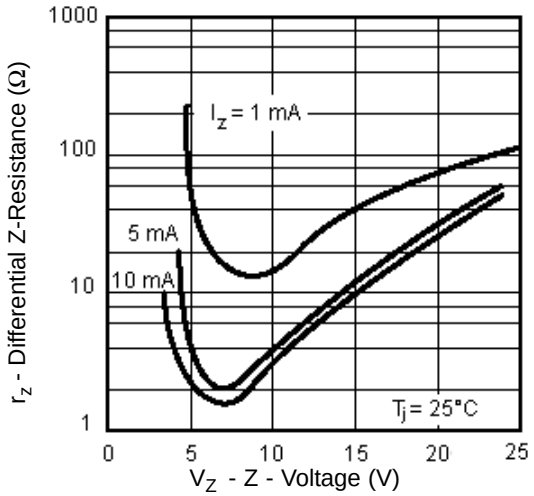
Forward Current vs. Forward Voltage



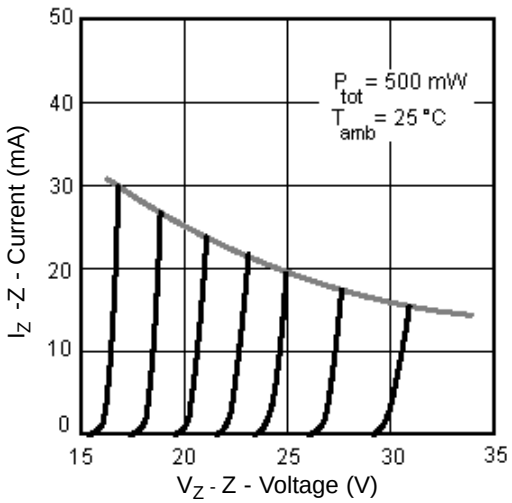
Z-Current vs. Z-Voltage



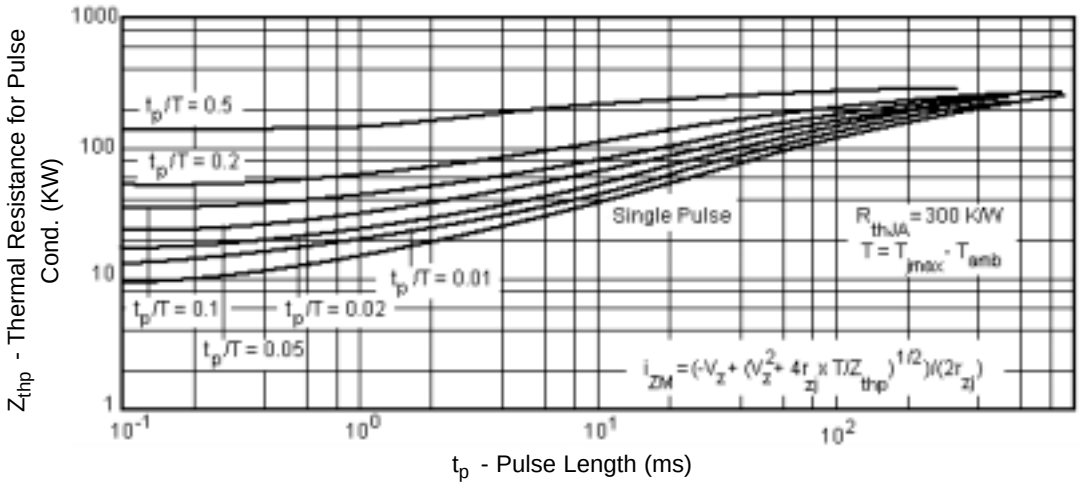
Differential Z - Resistance vs. Z-Voltage



Z-Current vs. Z-Voltage



Thermal Response



BZT55C- Series

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

V_Z at I_{ZT} (Volts)		I_{ZT} mA	Z_{ZT} at I_{ZT} Ohms Maximum	I_{ZK} mA	Z_{ZK} at I_{ZK} Ohms	I_R at V_R uA Maximum	V_R V	Part Number
V_Z Minimum (V)	V_Z Maximum (V)							
9.4	10.6	5	15	1.0	70	0.1	7.5	BZT55C10
10.4	11.6		20				8.2	BZT55C11
11.4	12.7				90		9.1	BZT55C12
12.4	14.1		26		110		10	BZT55C13
13.8	15.6		30				11	BZT55C15
15.3	17.1		40		170		12	BZT55C16
16.8	19.1		50				13	BZT55C18
18.8	21.1		55		220		15	BZT55C20
20.8	23.3						16	BZT55C22
22.8	25.6		80				18	BZT55C24
25.1	28.9	2					20	BZT55C27
1.88	2.11	5	100		600	50	1.0	BZT55C2V0
2.08	2.33							BZT55C2V2
2.28	2.56		85					BZT55C2V4
2.51	2.89					10		BZT55C2V7
28	32	2	80		220	0.1	22	BZT55C30
31	35						24	BZT55C33
34	38						27	BZT55C36
37	41		90	0.5	500		28	BZT55C39
2.8	3.2	5	85	1.0	600	4	1.0	BZT55C3V0
3.1	3.5					2		BZT55C3V3
3.4	3.8							BZT55C3V6
3.7	4.1							BZT55C3V9
40	46	2	90	0.5		0.1	35	BZT55C43
44	50		110		700			BZT55C47
4.0	4.6	5	75	1.0	600	2	1.0	BZT55C4V3
4.4	5.0		60			0.5		BZT55C4V7
48	54	2	125	0.5	700	0.1	38	BZT55C51
52	60		135		1000		42	BZT55C56
4.8	5.4	5	35	1.0	550		1.0	BZT55C5V1
5.2	6.0		25		450			BZT55C5V6
58	66	2.5	150	0.5	1000		47	BZT55C62

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

V_Z at I_{ZT} (Volts)		I_{ZT} mA	Z_{ZT} at I_{ZT} Ohms Maximum	I_{ZK} mA	Z_{ZK} at I_{ZK} Ohms	I_R at V_R uA Maximum	V_R V	Part Number
V_Z Minimum (V)	V_Z Maximum (V)							
64	72	2.5	160	0.5	1000	0.1	51	BZT55C68
5.8	6.6	5	10	1.0	200		2.0	BZT55C6V2
6.4	7.2		8		150		3.0	BZT55C6V8
70	80	2.5	170	0.5	1000		56	BZT55C75
7.0	7.9	5	7	1.0	50		5.0	BZT55C7V5
7.7	8.7						6.2	BZT55C8V2
8.5	9.6		10				6.8	BZT55C9V1

VF Forward Voltage = 1.0v Maximum at I_F = 100mA for all types.

Notes : 1. The type numbers listed have zener voltage min/max limits as shown.
2. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rams value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

Notes:

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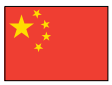

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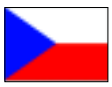

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