

## 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.

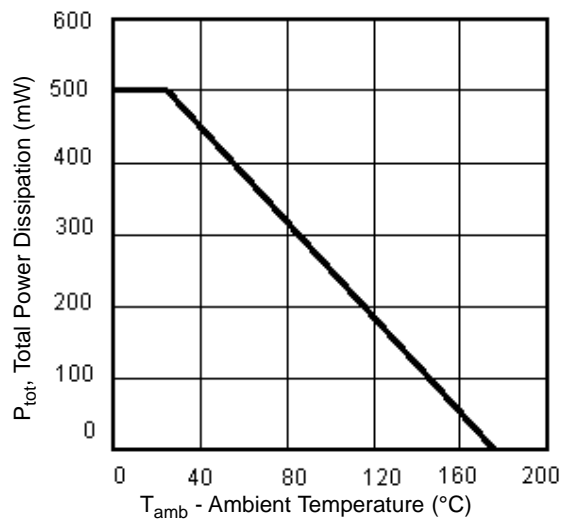
## Maximum Ratings and Electrical Characteristics

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

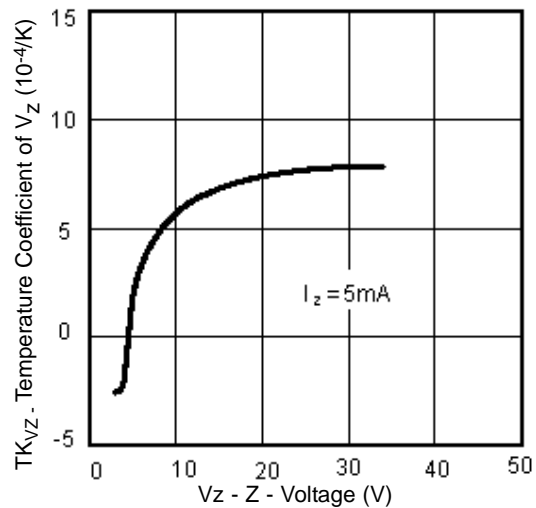
Notes : These ratings are limiting values above which the serviceability of the diode may be impaired.

## Ratings and Characteristic Curves

Total Power Dissipation vs. Ambient Temperature



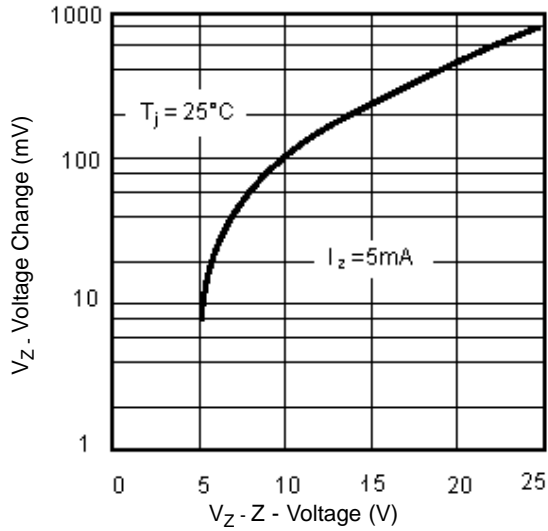
Temperature Coefficient of  $V_Z$  vs. Z-Voltage



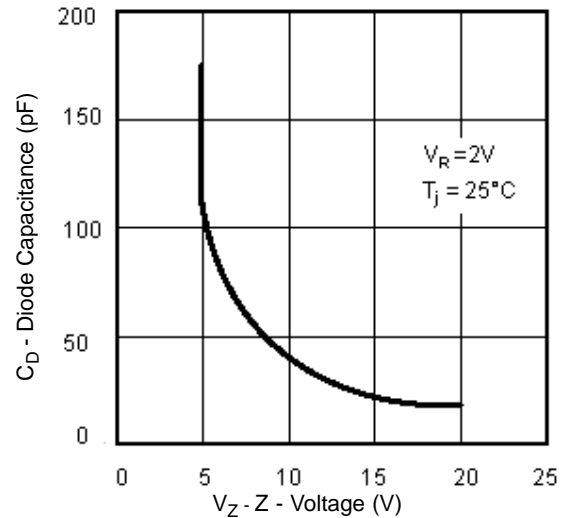
# BZT55C- Series



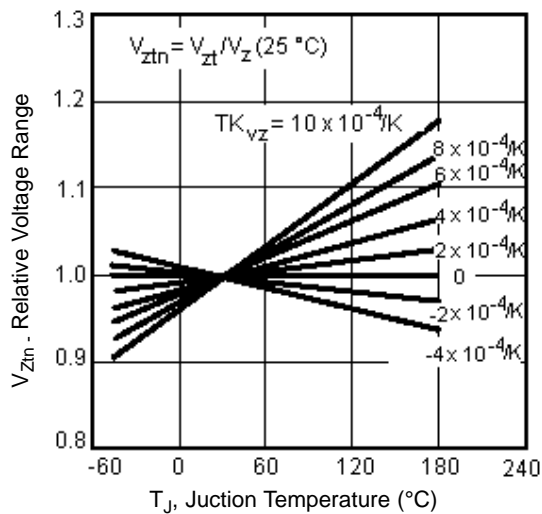
Typical Change of Working Voltage under Operating Conditions at  $T_{amb} = 25^{\circ}\text{C}$



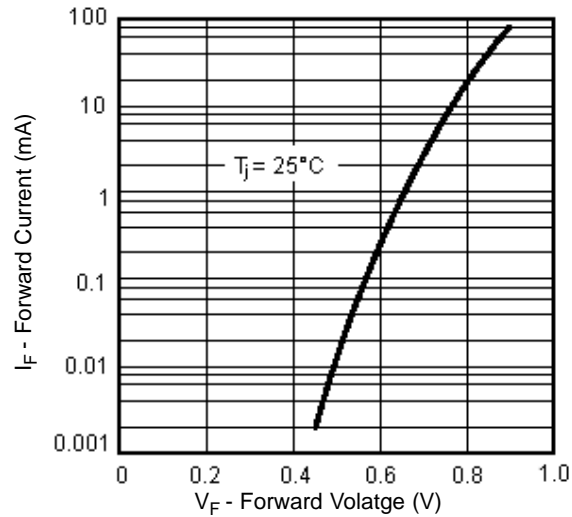
Diode Capacitance vs. Z - Voltage



Typical Change of Working Voltage vs. Junction Temperature



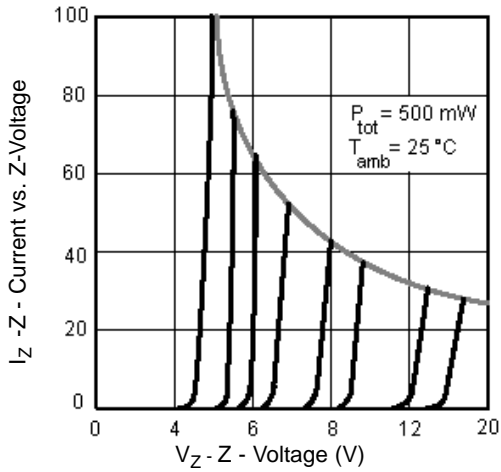
Forward Current vs. Forward Voltage



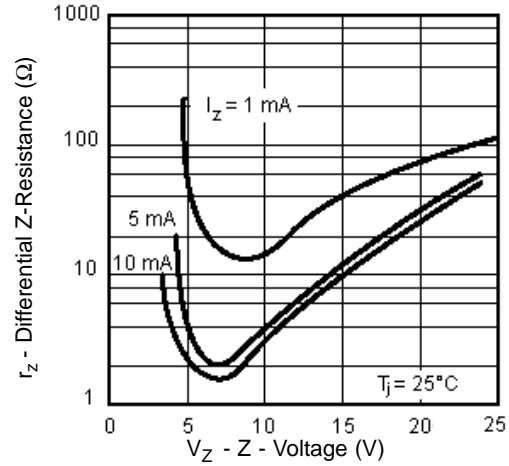
# BZT55C- Series



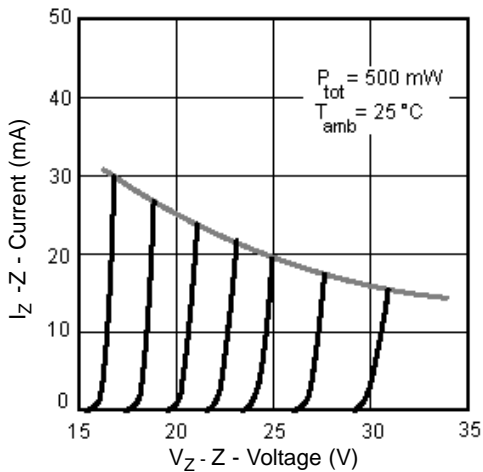
Z-Current vs. Z-Voltage



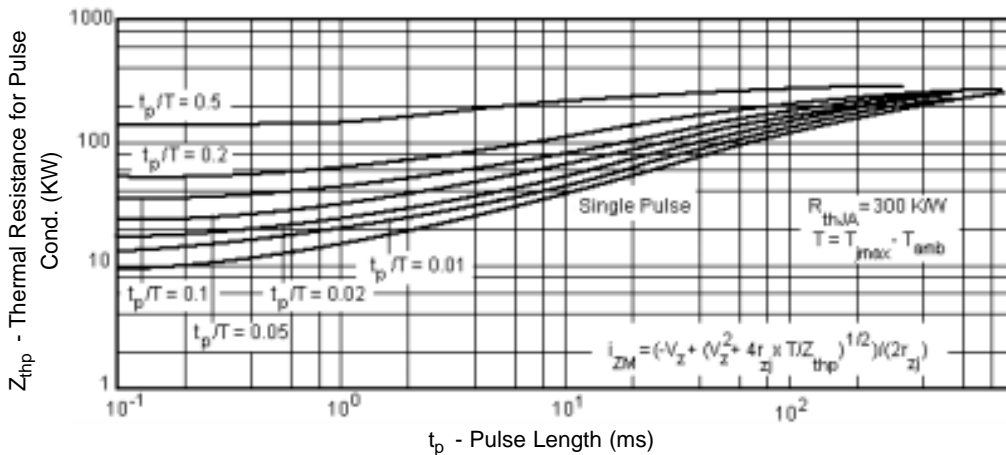
Differential Z - Resistance vs. Z-Voltage



Z-Current vs. Z-Voltage



Thermal Response



# BZT55C- Series



## Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ 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 $V_R$ $\mu\text{A}$ 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				26	110	12	8.2	BZT55C11																												
11.4	12.7									30	40	170	13	9.1	BZT55C12																								
12.4	14.1													50	55	220	15	10	BZT55C13																				
13.8	15.6																	80	85	600	16	11	BZT55C15																
15.3	17.1																					2	100	50	1.0	12	BZT55C16												
16.8	19.1																									85	220	10	22	13	BZT55C18								
18.8	21.1																													2	80	0.1	24	15	BZT55C20				
20.8	23.3																																	90	500	28	35	16	BZT55C22
22.8	25.6																																					18	BZT55C24
25.1	28.9	20	BZT55C27																																				
1.88	2.11	5	100	600	50	1.0	BZT55C2V0																																
2.08	2.33						BZT55C2V2																																
2.28	2.56						BZT55C2V4																																
2.51	2.89						BZT55C2V7																																
28	32	2	80	220	0.1	0.1	22	BZT55C30																															
31	35						24	BZT55C33																															
34	38						27	BZT55C36																															
37	41						28	BZT55C39																															
2.8	3.2	5	85	1.0	600	1.0	4	BZT55C3V0																															
3.1	3.5						2	BZT55C3V3																															
3.4	3.8						0.1	BZT55C3V6																															
3.7	4.1						0.1	BZT55C3V9																															
40	46	2	90	0.5	700	0.1	35	BZT55C43																															
44	50						35	BZT55C47																															
4.0	4.6	5	75	1.0	600	1.0	2	BZT55C4V3																															
4.4	5.0						0.5	BZT55C4V7																															
48	54	2	125	0.5	700	0.1	38	BZT55C51																															
52	60						42	BZT55C56																															
4.8	5.4	5	35	1.0	550	1.0	1.0	BZT55C5V1																															
5.2	6.0						450	BZT55C5V6																															
58	66	2.5	150	0.5	1000	47	BZT55C62																																



## Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ 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 $V_R$ $\mu\text{A}$ 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

$V_F$  Forward Voltage = 1.0v Maximum at  $I_F = 100\text{mA}$  for all types.

- Notes :
- The type numbers listed have zener voltage min/max limits as shown.
  - 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  $I_{ZK}$ .

## Notes:

## International Sales Offices:

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