

## 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.

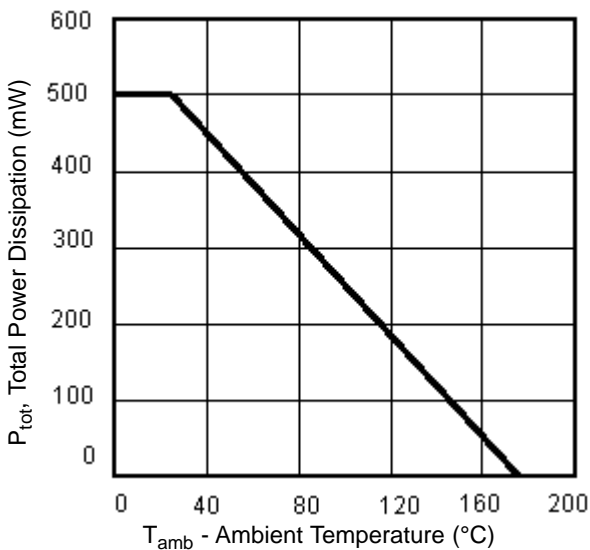
## Maximum Ratings and Electrical Characteristics

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

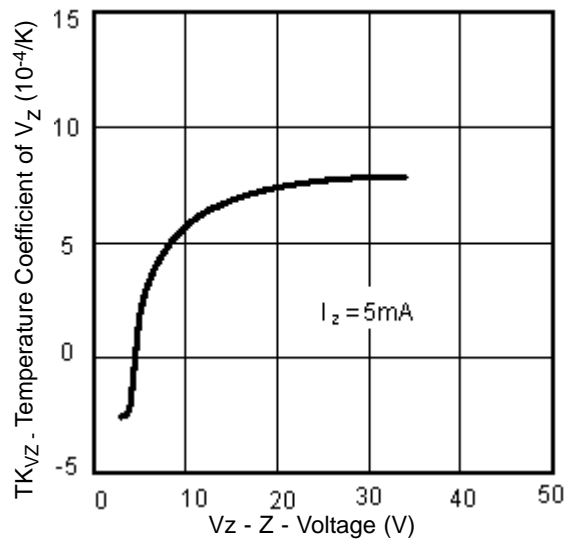
Notes : These ratings are limiting values above which the serviceability of the diode may be impaired.

## Ratings and Characteristic Curves

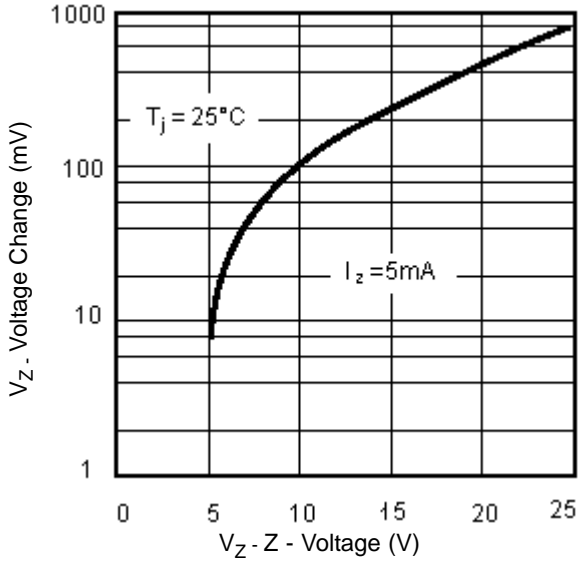
Total Power Dissipation vs. Ambient Temperature



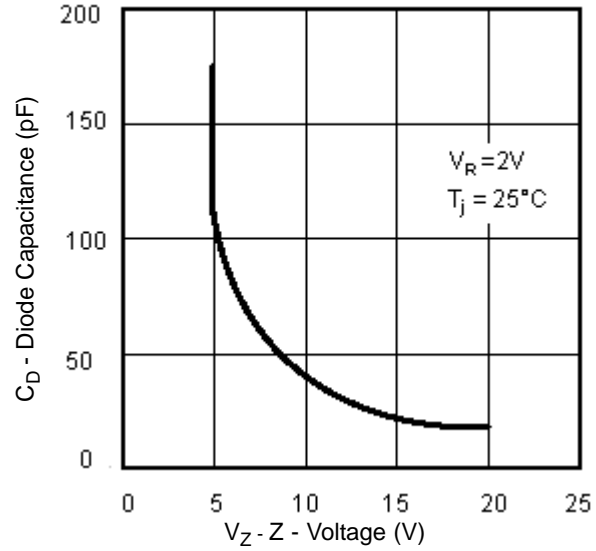
Temperature Coefficient of V<sub>Z</sub> vs. Z-Voltage



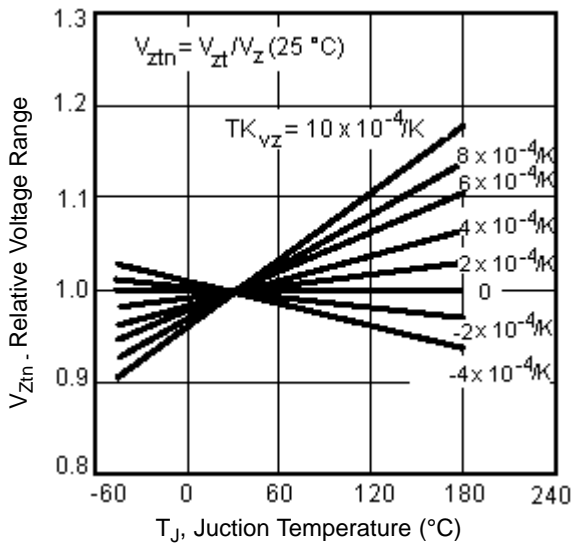
Typical Change of Working Voltage under Operating Conditions at  $T_{amb} = 25^{\circ}C$



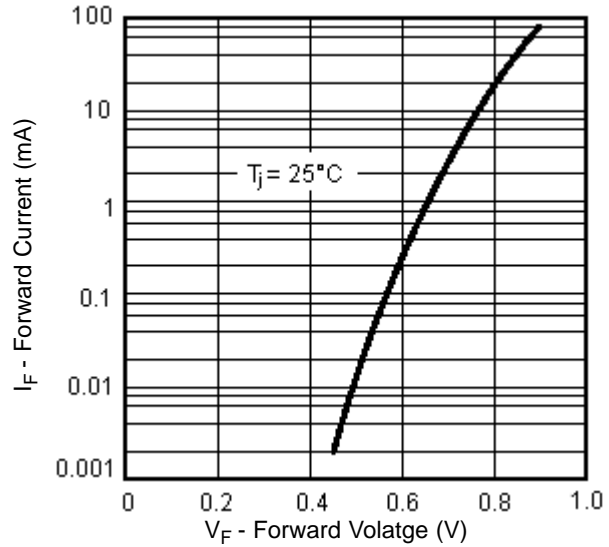
Diode Capacitance vs. Z - Voltage



Typical Change of Working Voltage vs. Junction Temperature



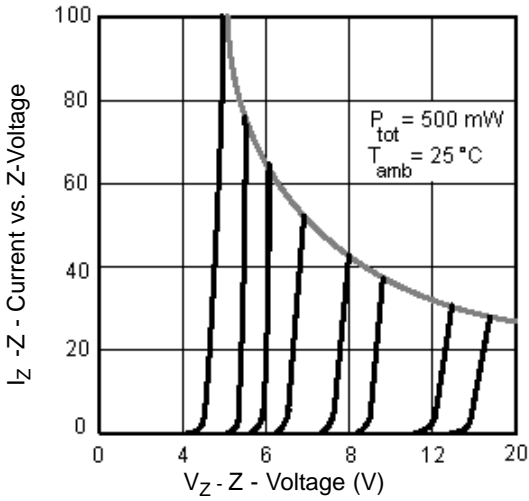
Forward Current vs. Forward Voltage



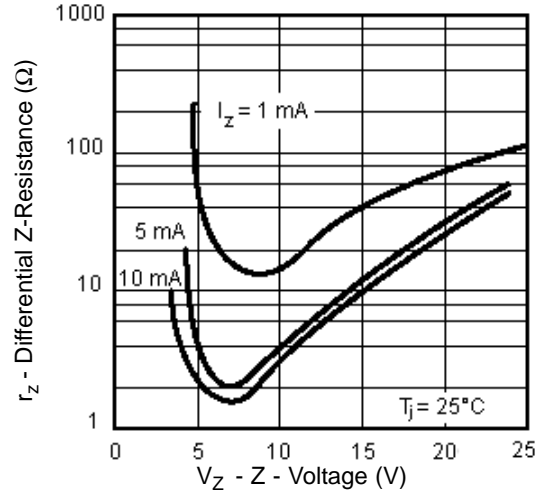
# BZT55C- Series



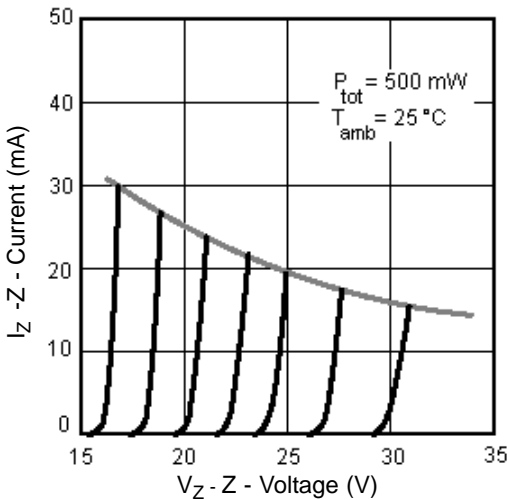
Z-Current vs. Z-Voltage



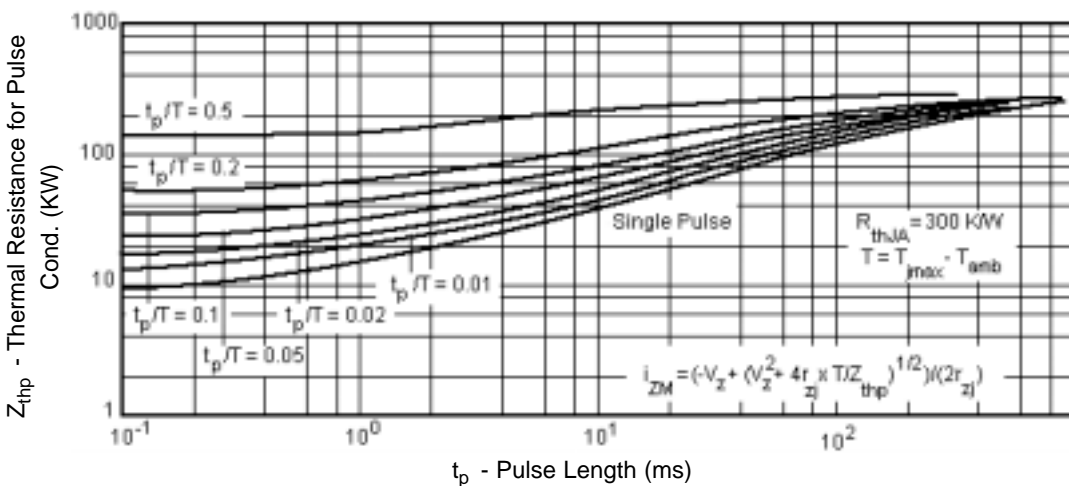
Differential Z - Resistance vs. Z-Voltage



Z-Current vs. Z-Voltage



Thermal Response



## 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 $V_R$ 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				70	8.2	BZT55C11
11.4	12.7		26				90	9.1	BZT55C12
12.4	14.1		30				110	10	BZT55C13
13.8	15.6		40				170	11	BZT55C15
15.3	17.1		50				220	12	BZT55C16
16.8	19.1		55				220	13	BZT55C18
18.8	21.1		80				220	15	BZT55C20
20.8	23.3		2				80	16	BZT55C22
22.8	25.6		2				80	18	BZT55C24
25.1	28.9	2	80	20	BZT55C27				
1.88	2.11	5	100	600	50	1.0	BZT55C2V0		
2.08	2.33		85				BZT55C2V2		
2.28	2.56		85				BZT55C2V4		
2.51	2.89		85				BZT55C2V7		
28	32	2	80	220	0.1	22	BZT55C30		
31	35		80			22	BZT55C33		
34	38		90			27	BZT55C36		
37	41		90			28	BZT55C39		
2.8	3.2	5	85	600	4	1.0	BZT55C3V0		
3.1	3.5		85		2		BZT55C3V3		
3.4	3.8		85		2		BZT55C3V6		
3.7	4.1		85		2		BZT55C3V9		
40	46	2	90	0.5	700	0.1	35	BZT55C43	
44	50		110				35	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				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		

# 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 $V_R$ 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

$V_F$  Forward Voltage = 1.0v Maximum at  $I_F = 100\text{mA}$  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 rms 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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