



## Features:

- High reliability
- Very sharp reverse characteristic
- Zener voltage 3.3 to 12 V
- $V_Z$ -tolerance  $\pm 5\%$

## Applications:

Voltage stabilization

## Absolute Maximum Ratings $T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Power dissipation	$T_{\text{amb}} \leq 75^\circ\text{C}$	$P_V$	500	mW
Z-current	-	$I_Z$	$P_V / V_Z$	mA
Junction temperature	-	$T_j$	200	$^\circ\text{C}$
Storage temperature range	-	$T_{\text{stg}}$	-65 to +200	$^\circ\text{C}$

## Maximum Thermal Resistance $T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	$l = 9.5 \text{ mm (3/8 inches)}$ $T_L = \text{constant}$	$R_{\text{thJA}}$	300	K/W

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

## Electrical Characteristics $T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Maximum	Unit
Forward voltage	$I_F = 200 \text{ mA}$	$V_F$	1.5	V

## Specification Table

Type	$V_{Z\text{nom}}^{1)}$	$I_{ZT}$	for	$Z_{ZT}$	$I_R$	at	$V_R$	$I_{ZM}^{2)}$
	V	mA		$\Omega$	$\mu\text{A}$		V	mA
1N746A	3.3	20		28	10		1	110
1N747A	3.6	20		24	10		1	100
1N748A	3.9	20		23	10		1	95
1N749A	4.3	20		22	2		1	85
1N750A	4.7	20		19	2		1	75
1N751A	5.1	20		17	1		1	70
1N752A	5.6	20		11	1		1	65
1N753A	6.2	20		7	0.1		1	60
1N754A	6.8	20		5	0.1		1	55

## Specification Table

Type	$V_{Znom}^{1)}$	$I_{ZT}$ for $Z_{ZT}$		$I_R$ at $V_R$		$I_{ZM}^{2)}$
	V	mA	$\Omega$	$\mu A$	V	mA
1N755A	7.5	20	6	0.1	1	50
1N756A	8.2	20	8	0.1	1	45
1N757A	9.1	20	10	0.1	1	40
1N758A	10	20	17	0.1	1	35
1N759A	12	20	30	0.1	1	30

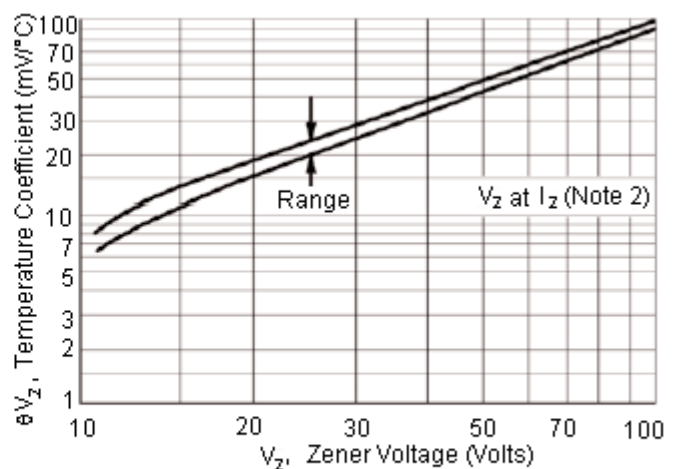
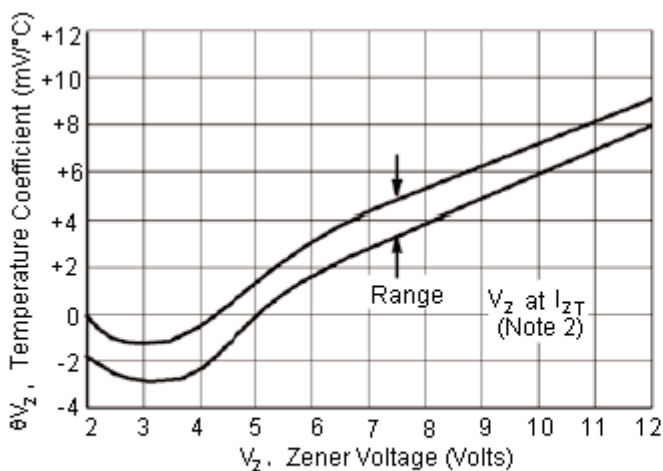
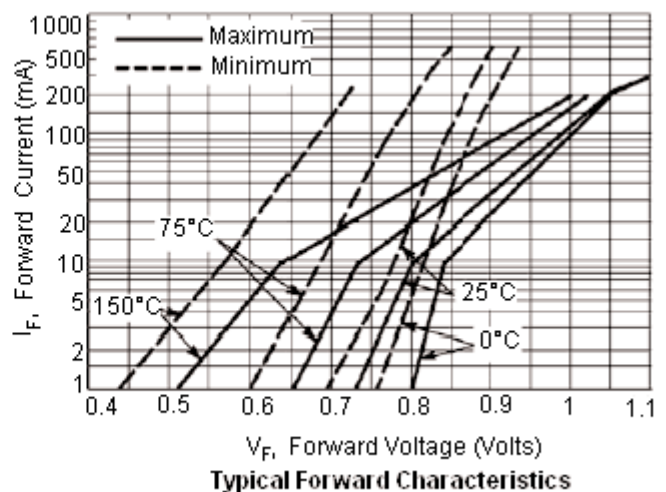
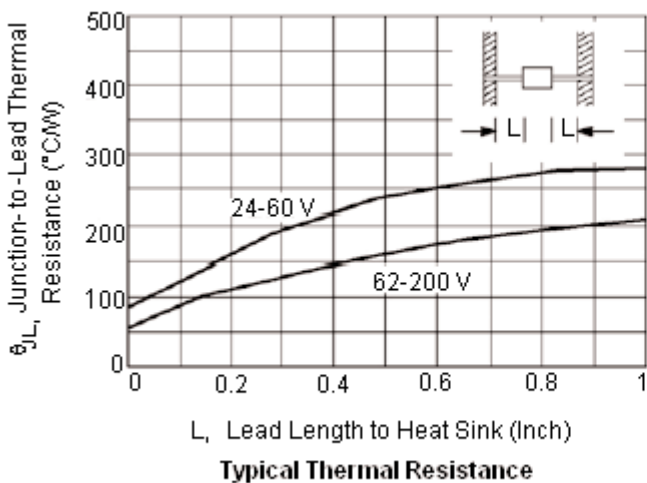
### 1) Tolerance and voltage designation ( $V_Z$ ):

The type numbers shown have a standard tolerance of  $\pm 5\%$  on the nominal zener voltage, C for  $\pm 2\%$ , D for  $\pm 1\%$

### 2) Maximum zener current ratings ( $I_{ZM}$ ):

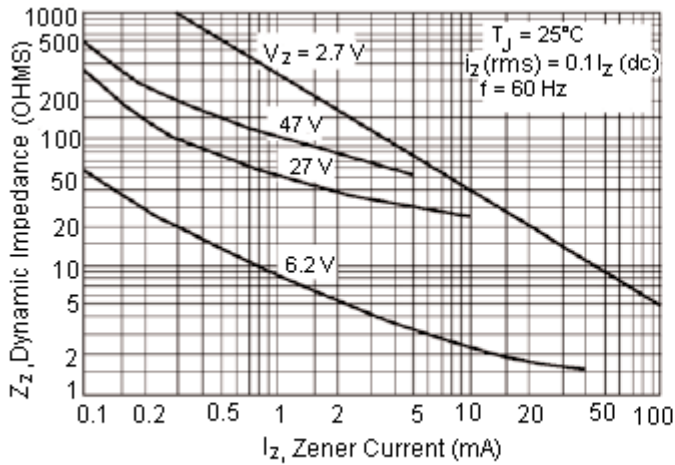
Maximum zener current ratings are based on maximum zener voltage of the individual units and JEDEC 250 mW rating

## Characteristics ( $T_j = 25^\circ C$ unless otherwise specified)

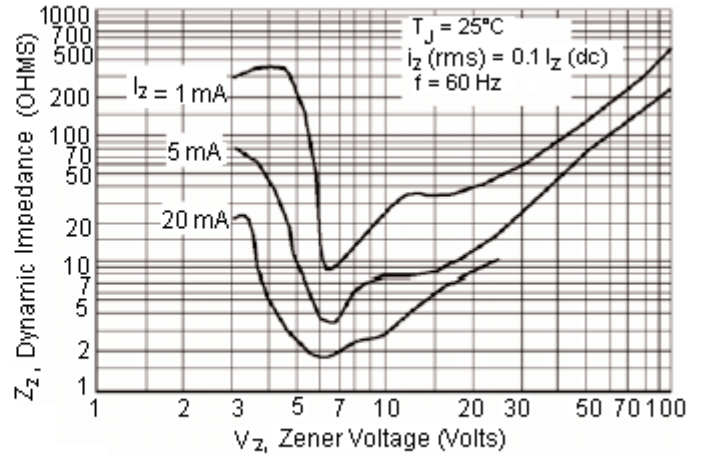


(-55°C to +150°C temperature range; 90% of the units are in the ranges indicated.)

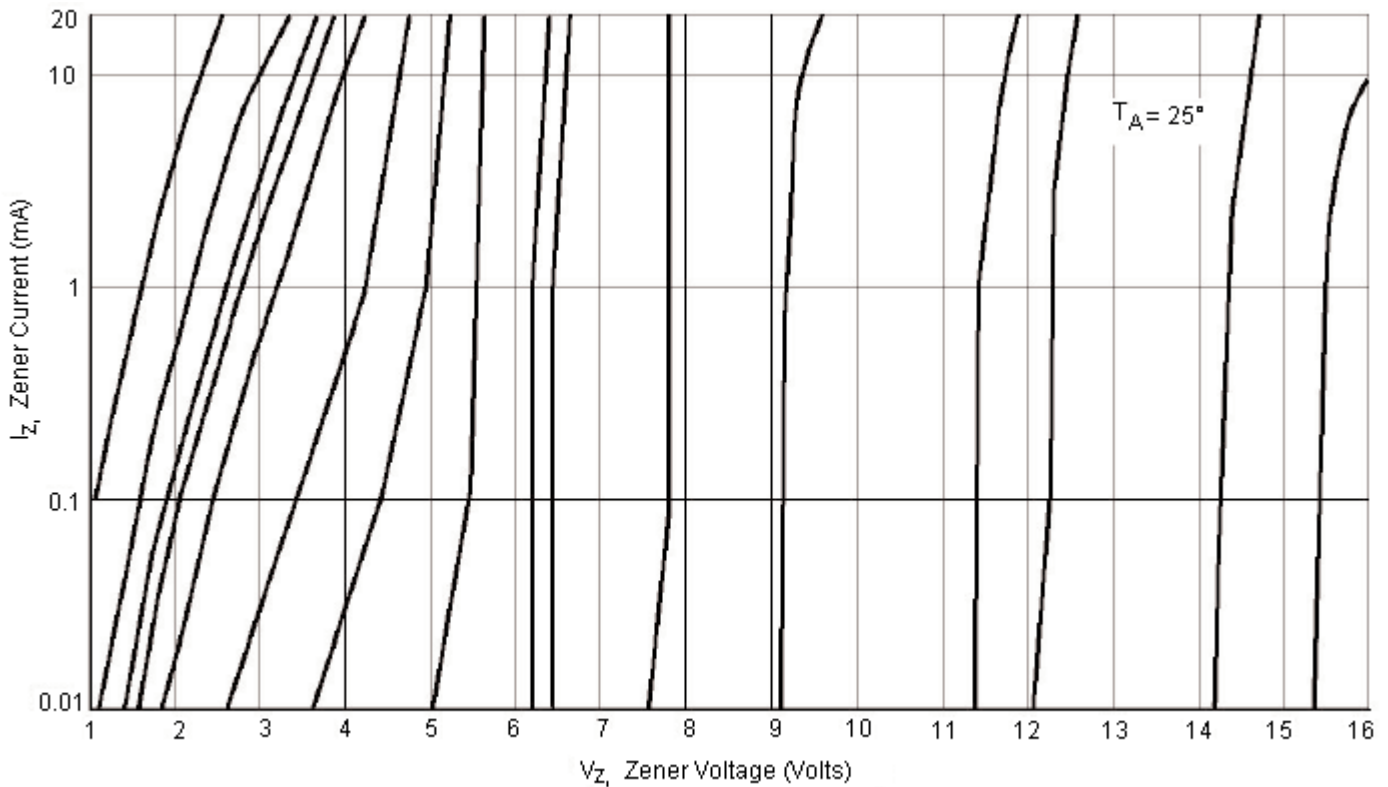
## Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise specified)



Effect of zener current on zener impedance

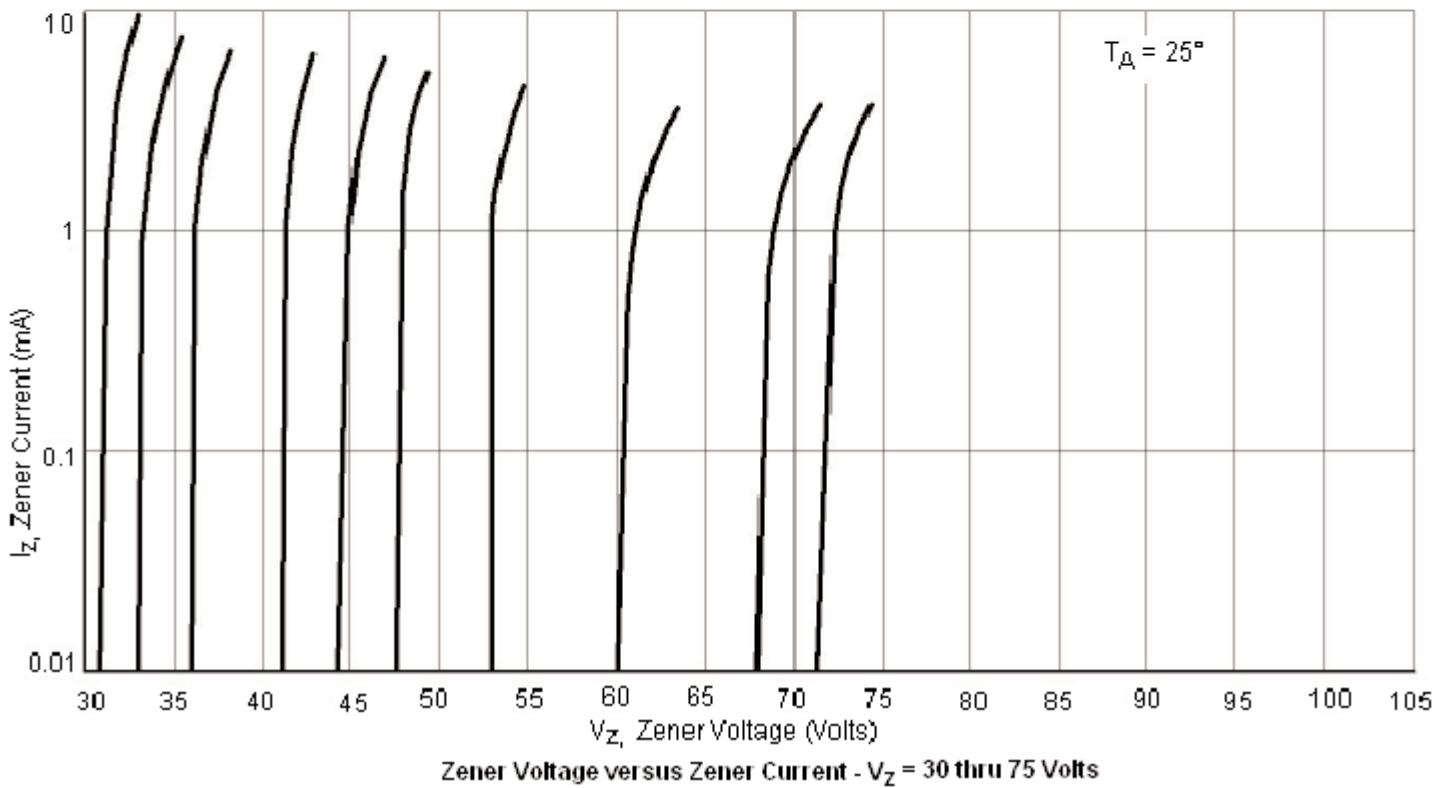
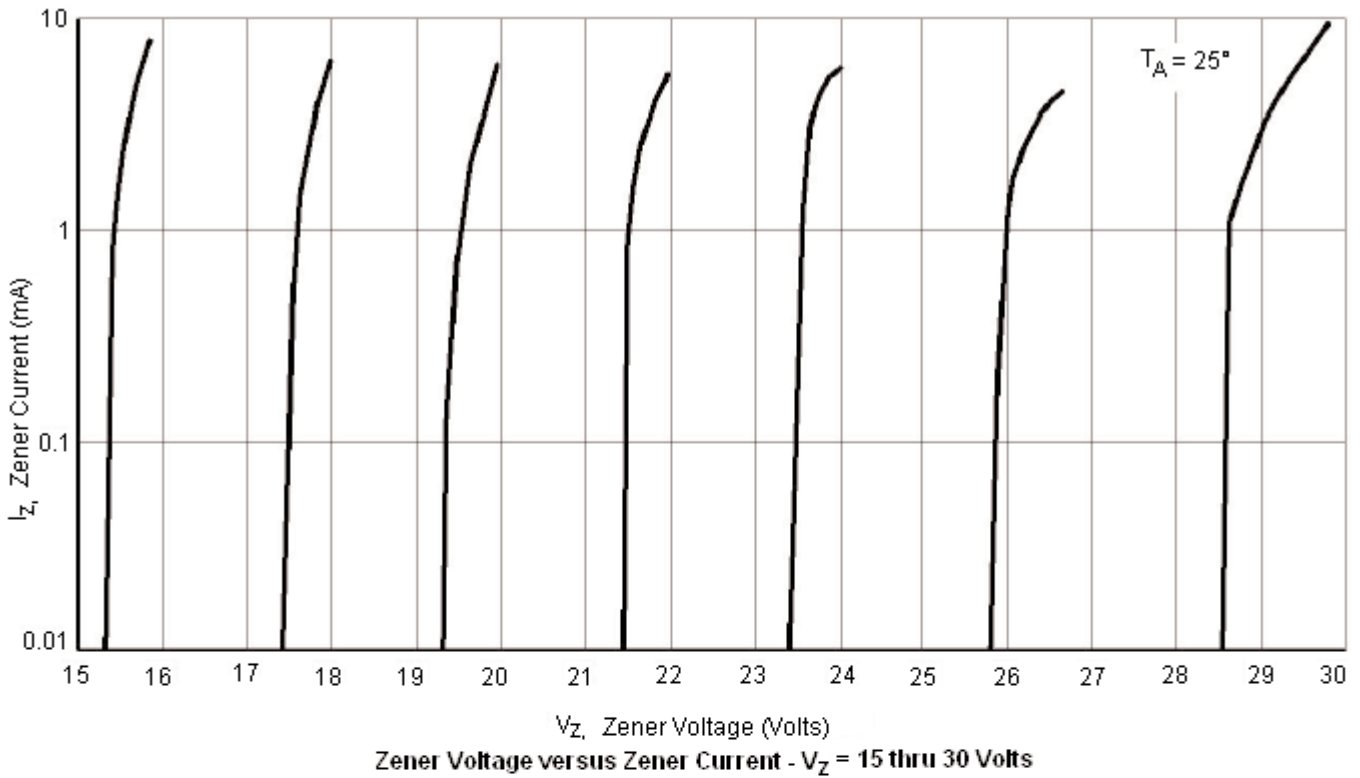


Effect of zener voltage on zener impedance



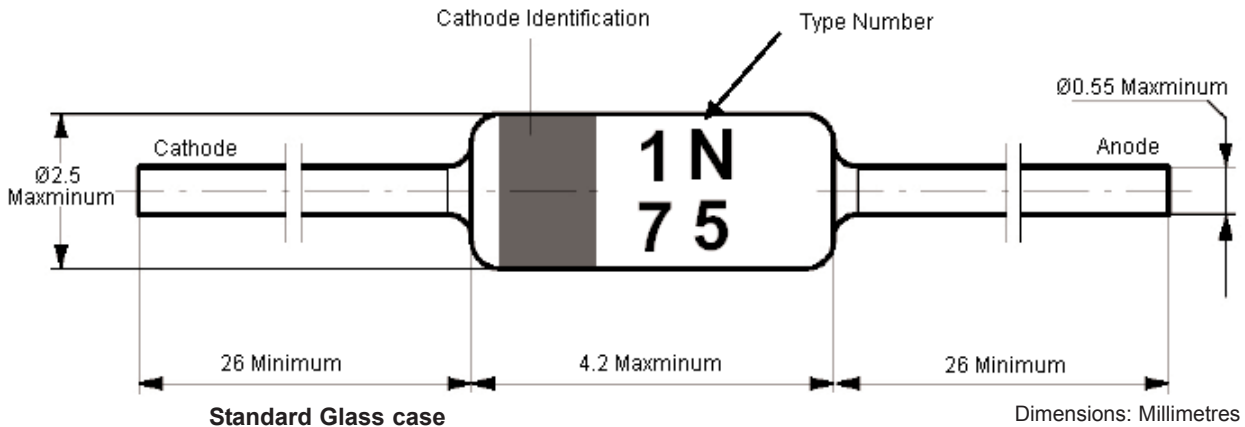
Zener Voltage versus Zener Current -  $V_z = 1$  thru 16 Volts

# Zener Diode

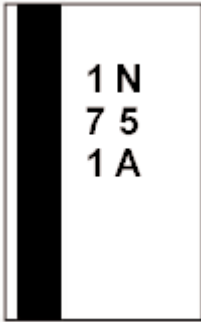


# Zener Diode

## Dimensions in mm



## Marking



## Part Number Table

Description	Part Number
Zener Diode	1N746A
Zener Diode	1N747A
Zener Diode	1N748A
Zener Diode	1N757A
Zener Diode	1N758A
Zener Diode	1N759A
Zener Diode	1N754A
Zener Diode	1N755A
Zener Diode	1N756A
Zener Diode	1N751A
Zener Diode	1N752A
Zener Diode	1N753A
Zener Diode	1N749A
Zener Diode	1N750A

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