



## Features:

- High reliability.
- Very sharp reverse characteristic.
- Low reverse current level.
- $V_z$ -tolerance  $\pm 5\%$ .

## Application:

Voltage stabilization.

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

Parameter	Test Conditions	Symbol	Value	Unit
Power dissipation	$T_{\text{amb}} \leq 50^\circ\text{C}$	$P_v$	1	W
Z-current	-	$I_z$	$P_v / V_z$	mA
Junction temperature	-	$T_j$	200	°C
Storage temperature range	-	$T_{\text{stg}}$	-65 to +175	

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

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	$l = 9.5 \text{ mm (3/8") } T_L = \text{constant}$	$R_{\text{thJA}}$	100	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	$I_F = 200 \text{ mA}$	$V_F$	1.2	V

# Zener Diode



## Specification Table

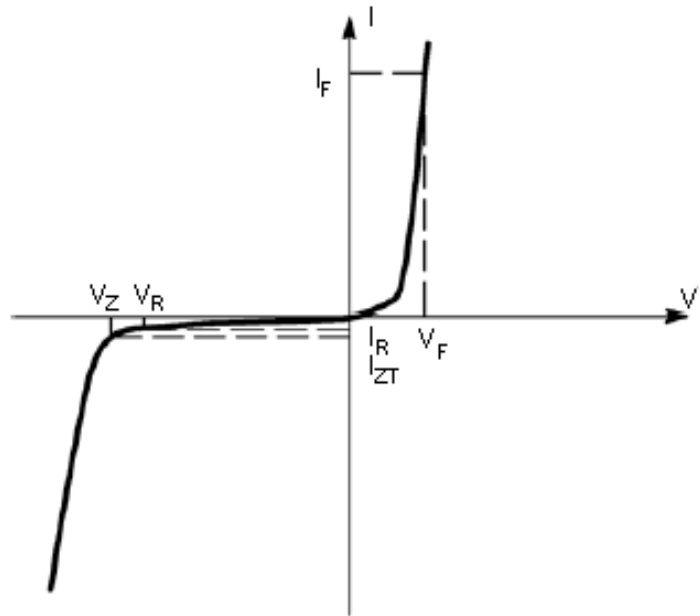
$V_{Znom}^{1)}$	$I_{ZT}$ for	$r_{ziT}$	$r_{ziK}$ at	$I_{ZK}$	$I_R$ at	$V_R$	Part Number
V	mA	$\Omega$	$\Omega$	mA	$\mu A$	V	
3.3	76	< 10	< 400	1	< 100	1	1N4728A
3.6	69	< 10	< 400	1	< 100	1	1N4729A
3.9	64	< 9	< 400	1	< 50	1	1N4730A
4.7	53	< 8	< 500	1	< 10	1	1N4732A
5.1	49	< 7	< 550	1	< 10	1	1N4733A
5.6	45	< 5	< 600	1	< 10	2	1N4734A
6.2	41	< 2	< 700	1	< 10	3	1N4735A
6.8	37	< 3.5	< 700	1	< 10	4	1N4736A
7.5	34	< 4	< 700	0.5	< 10	5	1N4737A
8.2	31	< 4.5	< 700	0.5	< 10	6	1N4738A
9.1	28	< 5	< 700	0.5	< 10	7	1N4739A
10	25	< 7	< 700	0.25	< 10	7.6	1N4740A
11	23	< 8	< 700	0.25	< 5	8.4	1N4741A
12	21	< 9	< 700	0.25	< 5	9.1	1N4742A
13	19	< 10	< 700	0.25	< 5	9.9	1N4743A
15	17	< 14	< 700	0.25	< 5	11.4	1N4744A
16	15.5	< 16	< 700	0.25	< 5	12.2	1N4745A
18	14	< 20	< 750	0.25	< 5	13.7	1N4746A
20	12.5	< 22	< 750	0.25	< 5	15.2	1N4747A
22	11.5	< 23	< 750	0.25	< 5	16.7	1N4748A
24	10.5	< 25	< 750	0.25	< 5	18.2	1N4749A
27	9.5	< 35	< 750	0.25	< 5	20.6	1N4750A
30	8.5	< 40	< 1000	0.25	< 5	22.8	1N4751A
33	7.5	< 45	< 1000	0.25	< 5	25.1	1N4752A
36	7	< 50	< 1000	0.25	< 5	27.4	1N4753A
39	6.5	< 60	< 1000	0.25	< 5	29.7	1N4754A
43	6	< 70	< 1500	0.25	< 5	32.7	1N4755A
47	5.5	< 80	< 1500	0.25	< 5	35.8	1N4756A
51	5	< 95	< 1500	0.25	< 5	38.8	1N4757A
56	4.5	< 110	< 2000	0.25	< 5	42.6	1N4758A
62	4	< 125	< 2000	0.25	< 5	47.1	1N4759A
68	3.7	< 150	< 2000	0.25	< 5	51.7	1N4760A
75	3.3	< 175	< 2000	0.25	< 5	56	1N4761A

<sup>1)</sup> Based on DC-measurement at thermal equilibrium while maintaining the lead temperature ( $T_L$ ) at 30°C, 9.5 mm (3/8") from the diode body.

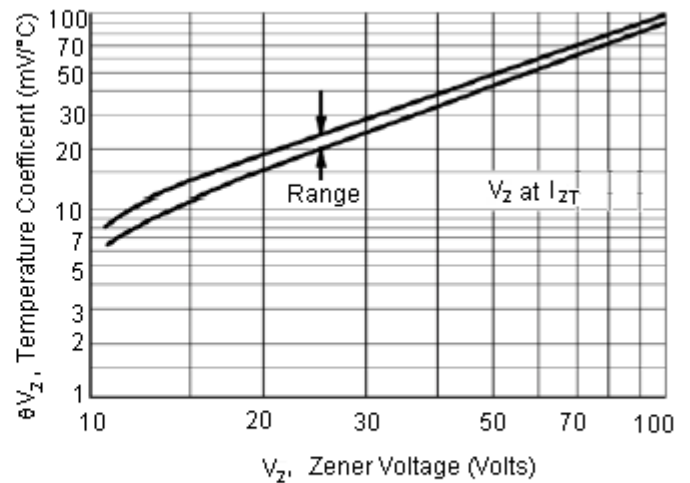
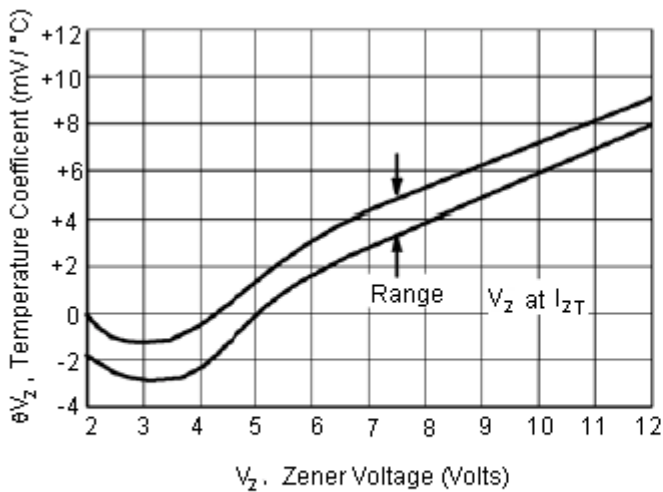
# Zener Diode

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

Symbol	Parameter
$V_Z$	Reverse zener voltage at $I_{ZT}$
$I_{ZT}$	Reverse current
$Z_{ZT}$	Maximum zener impedance at $I_{ZT}$
$I_{ZK}$	Reverse current
$Z_{ZK}$	Maximum zener impedance at $I_{ZK}$
$I_R$	Reverse leakage current at $V_R$
$V_R$	Breakdown voltage
$I_F$	Forward current
$V_F$	Forward voltage at $I_F$



Zener Voltage Regulator



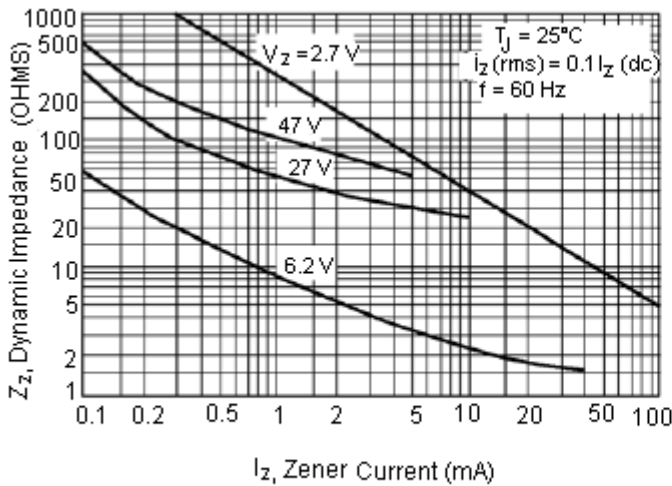
Temperature Coefficients

( $-55^\circ\text{C}$  to  $+150^\circ\text{C}$  temperature range; 90% of the units are in the ranges indicated)

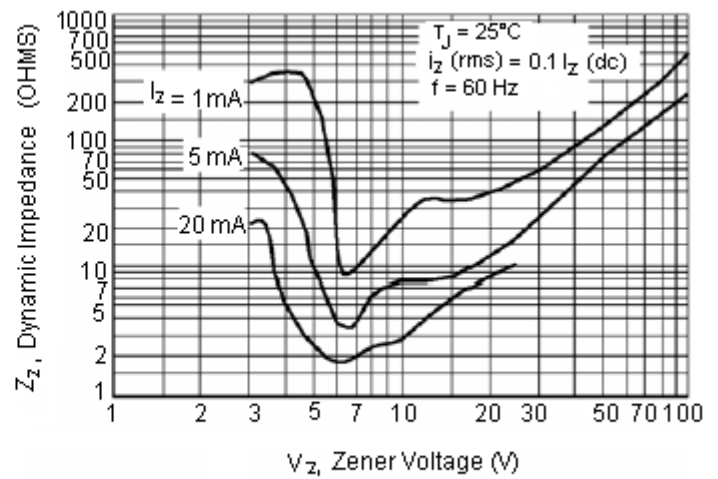
# Zener Diode



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

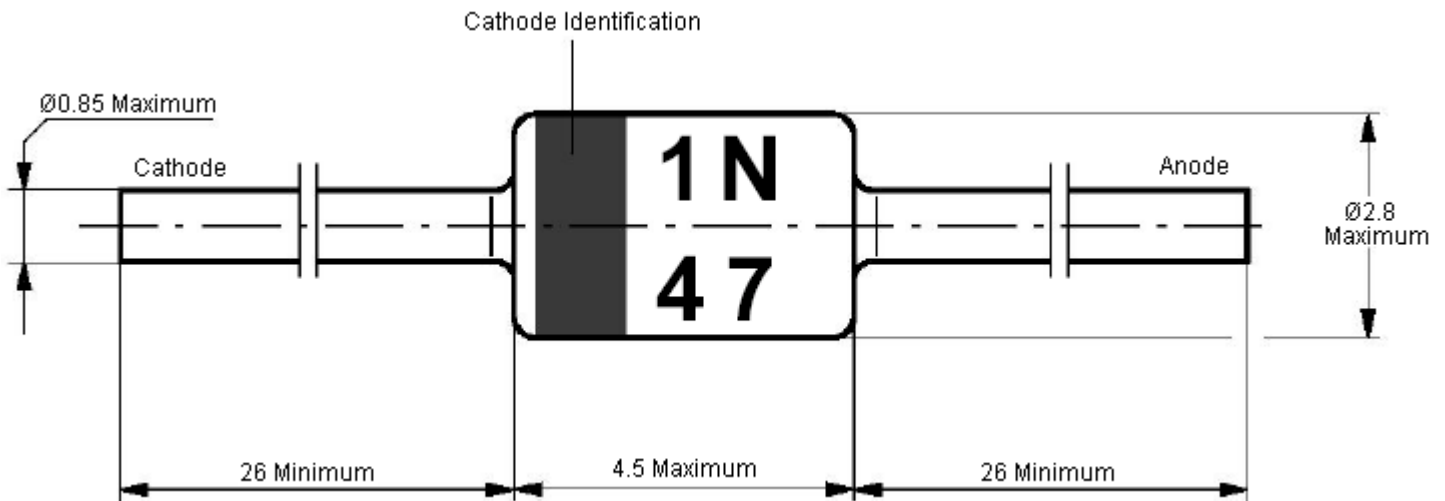


Effect of Zener Current on Zener Impedance



Effect of Zener Voltage on Zener Impedance

## Dimensions



Standard Glass case  
JEDEC DO-41

Dimensions: Millimetres

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