



# 1N4728A THRU 1N4764A

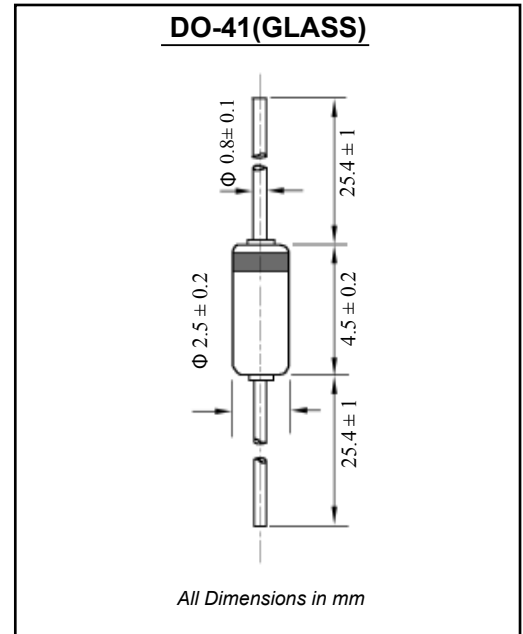
## 1W EPITAXIAL ZENER DIODE

### FEATURES

- Low profile package
- Built-in strain relief
- Low inductance
- High temperature soldering : 260°C /10 seconds at terminals
- Glass package has Underwriters Laboratory Flammability Classification
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded Glass DO-41G
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes positive end
- Mounting position: Any
- Weight: 0.012 ounce, 0.336 gram



### ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES)(TA=25°C)

	Symbols	Value	Units
Zener current see table "Characteristics"			
Power dissipation at TA=50°C	P <sub>tot</sub>	1 <sup>1)</sup>	W
Junction temperature	T <sub>J</sub>	175	°C
Storage temperature range	T <sub>STG</sub>	-65 to +175	°C

1) Valid provided that a distance of 8mm from case are kept at ambient temperature

### ELECTRICAL CHARACTERISTICS(TA=25°C)

	Symbols	Min	Typ	Max	Units
Thermal resistance junction to ambient	R <sub>thA</sub>			170 <sup>1)</sup>	°C/W
Forward voltage at I <sub>F</sub> =200mA	V <sub>F</sub>			1.2	V

1) Valid provided that a distance at 8mm from case are kept at ambient temperature



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### Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Type Number (Note 1)	Nominal Zener Voltage (Note 2)	Test Current	Maximum Zener Impedance (Note 3)			Leakage Current		Max Surge Current 8.3ms
	$V_z @ I_{ZT}$		$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$	
	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu\text{A}$ )	(V)	(mA)
1N4728A	3.3	76	10	400	1.0	100	1.0	1380
1N4729A	3.6	69	10	400	1.0	100	1.0	1260
1N4730A	3.9	64	9.0	400	1.0	50	1.0	1190
1N4731A	4.3	58	9.0	400	1.0	10	1.0	1070
1N4732A	4.7	53	8.0	500	1.0	10	1.0	970
1N4733A	5.1	49	7.0	550	1.0	10	1.0	890
1N4734A	5.6	45	5.0	600	1.0	10	2.0	810
1N4735A	6.2	41	2.0	700	1.0	10	3.0	730
1N4736A	6.8	37	3.5	700	1.0	5.0	4.0	660
1N4737A	7.5	34	4.0	700	0.5	5.0	5.0	605
1N4738A	8.2	31	4.5	700	0.5	5.0	6.0	550
1N4739A	9.1	28	5.0	700	0.5	0.5	7.0	500
1N4740A	10	25	7.0	700	0.25	0.5	7.6	454
1N4741A	11	23	8.0	700	0.25	0.1	8.4	414
1N4742A	12	21	9.0	700	0.25	0.1	9.1	380
1N4743A	13	19	10	700	0.25	0.1	9.9	344
1N4744A	15	17	14	700	0.25	0.1	11.4	304
1N4745A	16	15.5	16	700	0.25	0.1	12.2	285
1N4746A	18	14	20	750	0.25	0.1	13.7	250
1N4747A	20	12.5	22	750	0.25	0.1	15.2	225
1N4748A	22	11.5	23	750	0.25	0.1	16.7	205
1N4749A	24	10.5	25	750	0.25	0.1	18.2	190
1N4750A	27	9.5	35	750	0.25	0.1	20.6	170
1N4751A	30	8.5	40	1000	0.25	0.1	22.8	150
1N4752A	33	7.5	45	1000	0.25	0.1	25.1	135
1N4753A	36	7.0	50	1000	0.25	0.1	27.4	125
1N4754A	39	6.5	60	1000	0.25	0.1	29.7	115
1N4755A	43	6.0	70	1500	0.25	0.1	32.7	110
1N4756A	47	5.5	80	1500	0.25	0.1	35.8	95
1N4757A	51	5.0	95	1500	0.25	0.1	38.8	90
1N4758A	56	4.5	110	2000	0.25	0.1	42.6	80
1N4759A	62	4.0	125	2000	0.25	0.1	47.1	70
1N4760A	68	3.7	150	2000	0.25	0.1	51.7	65
1N4761A	75	3.3	175	2000	0.25	0.1	56.0	60
1N4762A	82	3.0	200	3000	0.25	0.1	62.2	55
1N4763A	91	2.8	250	3000	0.25	0.1	69.2	50
1N4764A	100	2.5	350	3000	0.25	0.1	76.0	45

Note: 1. Type numbers listed have standard tolerance on the nominal zener voltage of  $\pm 5\%$ .

2. Measured under thermal equilibrium and DC ( $I_{ZT}$ ) test conditions.

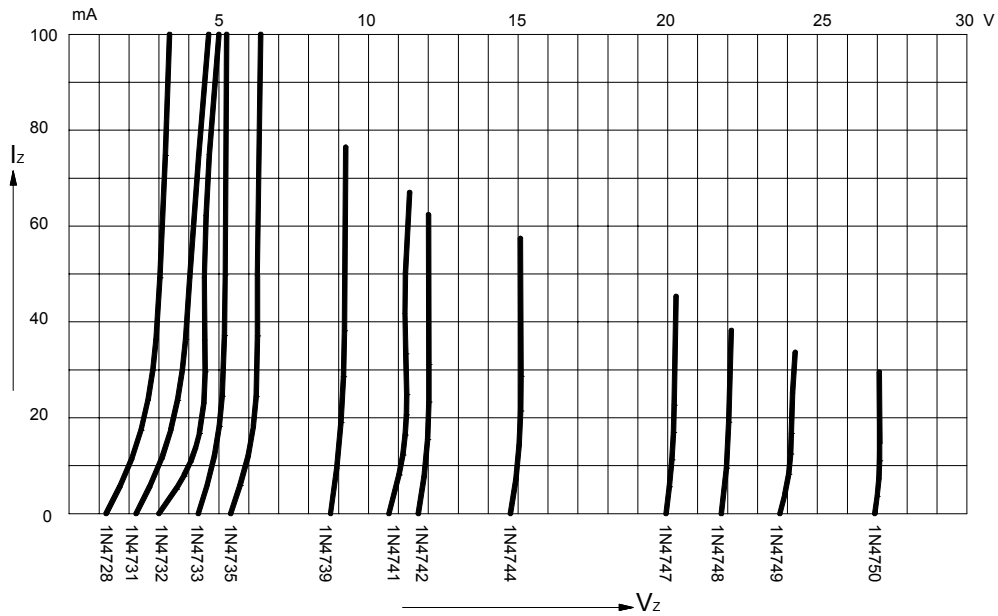
3. The Zener impedance is derived from the 60Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current ( $I_{ZT}$  or  $I_{ZK}$ ) is superimposed on  $I_{ZT}$  or  $I_{ZK}$ . Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.



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## RATINGS AND CHARACTERISTIC CURVES

**FIG.1 – BREAKDOWN CHARACTERISTICS**



**FIG.2 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE**

