



1N4728A THRU 1N4764A

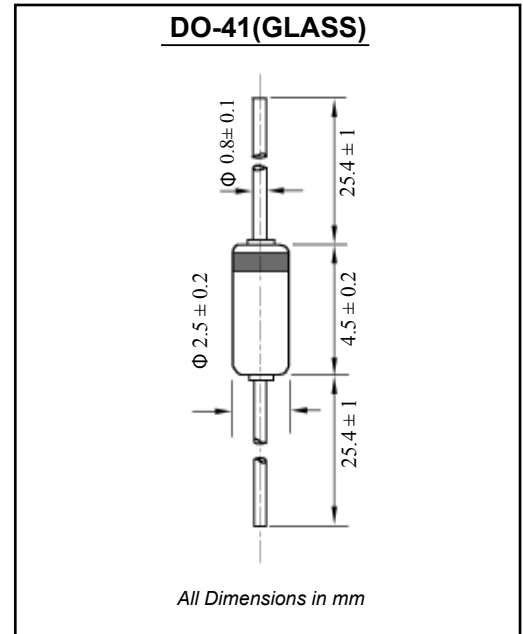
1W EPITAXIAL ZENER DIODE

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 _{tot}	1 ¹⁾	W
Junction temperature	T _J	175	°C
Storage temperature range	T _{STG}	-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 _{thA}			170 ¹⁾	°C/W
Forward voltage at I _F =200mA	V _F			1.2	V

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



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Type	Nominal Zener Voltage ³⁾	Test Current	Maximum Zener Impedance ¹⁾			Maximum reverse leakage current		Surge current	Maximum regulator Current ²⁾	
	at I_{ZT} V_Z V	I_{ZT} mA	at I_{ZT} Z_{ZT} Ω	Z_{ZK} Ω	at I_{ZK} mA	I_R μ A	at V_R V	at $T_A=0.25$ I_R mA	I_{ZM} mA	
1N4728	3.3	76	10	400	1.0	100	1.0	1380	276	
1N4729	3.6	69	10				1.0	1260	252	
1N4730	3.9	64	9			500	50	1.0	1190	234
1N4731	4.3	58	9					1.0	1070	217
1N4732	4.7	53	8	550	10	1.0	970	193		
1N4733	5.1	49	7			1.0	890	178		
1N4734	5.6	45	5	600	5.0	2.0	810	162		
1N4735	6.2	41	2			3.0	730	146		
1N4736	6.8	37	3.5	700	0.25	5	4.0	660	133	
1N4737	7.5	34	4.0				5.0	605	121	
1N4738	8.2	31	4.5				6.0	550	110	
1N4739	9.1	28	5.0				7.0	500	100	
1N4740	10	25	7	750	0.25	5	7.6	454	91	
1N4741	11	23	8				8.4	414	83	
1N4742	12	21	9				9.1	380	76	
1N4743	13	19	10				9.9	344	69	
1N4744	15	17	14	1000	0.25	5	11.4	304	61	
1N4745	16	15.5	16				12.2	285	57	
1N4746	18	14	20				13.7	250	50	
1N4747	20	12.5	22				15.2	225	45	
1N4748	22	11.5	23	1500	0.25	5	16.7	205	41	
1N4749	24	10.5	25				18.2	190	38	
1N4750	27	9.5	35				20.6	170	34	
1N4751	30	8.5	40				22.8	150	30	
1N4752	33	7.5	45	2000	0.25	5	25.1	135	27	
1N4753	36	7.0	50				27.4	125	25	
1N4754	39	6.5	60				29.7	115	23	
1N4755	43	6.0	70				32.7	110	22	
1N4756	47	5.5	80	3000	0.25	5	35.8	95	19	
1N4757	51	5.0	95				38.8	90	18	
1N4758	56	4.5	110				42.6	80	16	
1N4759	62	4.0	125				47.1	70	14	
1N4760	68	3.7	150	3000	0.25	5	51.7	65	13	
1N4761	75	3.3	175				56.0	60	12	
1N4762	82	3.0	200				62.2	55	11	
1N4763	91	2.8	250				69.2	50	10	
1N4764	100	2.5	350	76.0	45	9				

Notes: 1) The Zener impedance is derived from the 1KHz 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.

2) Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature

3) Measured under thermal equilibrium and DC test conditions.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1 – BREAKDOWN CHARACTERISTICS

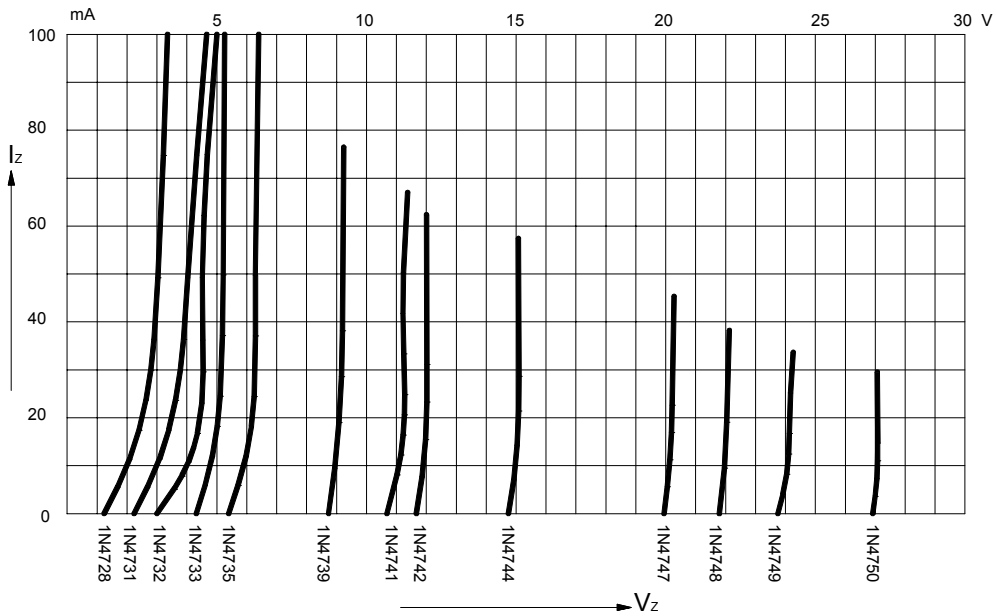


FIG.2 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

