CHENG-YI
ELECTRONIC

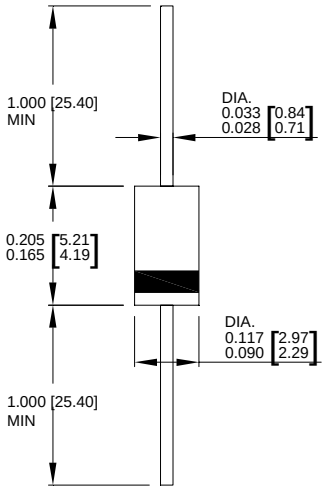
1N4736AP THRU 1N4764AP

PB FREE PRODUCT

1W GLASS PASSIVATED CHIP & PLASTIC CASE ZENER DIODE

FEATURES

* Glass passivated chip
* Low leakage
* Built-in strain relief
* Low inductance
* High peak reverse power dissipation
* For use in stabilizing and clipping circuits with high power rating



Dimensions in inches and (millimeters)

MECHANICAL DATA

* Case: Molded plastic
* Epoxy:UL 90V-0 rate flame reardant
* Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
* Polarity: Color band denotes positive end
* Mounting Position: Any
* Weight: 0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive of inductive load.
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	VALUE	UNIT
DC Power Dissipation at T_L=50℃ (Note 1)	P_D	1	Watt
Junction Temperature Range	T_J	-55 to 175	℃
Storage Temperature Range	T_S	-55 to 175	℃

*Valid provided that leads at a distance of 10mm from case kept at ambient temperature.

PARAMETER	SYMBOL	Min.	Typ.	Max.	Amps
Typical Thermal Resistance (Note 2)	$R_{\Theta JA}$	-	-	170	K/mW
Forward Voltage Range at 0.2A DC	V_F	-	-	1.2	V

Note:

(1) TL=Lead temperayure at 3/8" (9.5mm) from boby

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

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TECHNOLOGY ZENER 1W SERIES	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current	Marking Code
	VZ @ IZT	IZT	ZZT @ IZT	ZZK @ IZK	IZK	IR @ VR		IZM	IRM	
	(V)	(mA)	(Ω)	(Ω)	(mA)	(mA)	(V)	(mA)	(mApk)	
1N4736AP	6.8	37.0	3.5	700	1.0	10	4.0	133	660	**1N4736A**
1N4737AP	7.5	34.0	4.0	700	0.5	10	5.0	121	605	**1N4737A**
1N4738AP	8.2	31.0	4.5	700	0.5	10	6.0	110	550	**1N4738A**
1N4739AP	9.1	28.0	5.0	700	0.5	10	7.0	100	500	**1N4739A**
1N4740AP	10	25.0	7.0	700	0.25	10	7.6	91	454	**1N4740A**
1N4741AP	11	23.0	8.0	700	0.25	5.0	8.4	83	414	**1N4741A**
1N4742AP	12	21.0	9.0	700	0.25	5.0	9.1	76	380	**1N4742A**
1N4743AP	13	19.0	10	700	0.25	5.0	9.9	69	344	**1N4743A**
1N4744AP	15	17.0	14	700	0.25	5.0	11.4	61	305	**1N4744A**
1N4745AP	16	15.5	16	700	0.25	5.0	12.2	57	285	**1N4745A**
1N4746AP	18	14.0	20	750	0.25	5.0	13.7	50	250	**1N4746A**
1N4747AP	20	12.5	22	750	0.25	5.0	15.2	45	225	**1N4747A**
1N4748AP	22	11.5	23	750	0.25	5.0	16.7	41	205	**1N4748A**
1N4749AP	24	10.5	25	750	0.25	5.0	18.2	38	190	**1N4749A**
1N4750AP	27	9.5	35	750	0.25	5.0	20.6	34	170	**1N4750A**
1N4751AP	30	8.5	40	1000	0.25	5.0	22.8	30	150	**1N4751A**
1N4752AP	33	7.5	45	1000	0.25	5.0	25.1	27	135	**1N4752A**
1N4753AP	36	7.0	50	1000	0.25	5.0	27.4	25	125	**1N4753A**
1N4754AP	39	6.5	60	1000	0.25	5.0	29.7	23	115	**1N4754A**
1N4755AP	43	6.0	70	1500	0.25	5.0	32.7	22	110	**1N4755A**
1N4756AP	47	5.5	80	1500	0.25	5.0	35.8	19	95	**1N4756A**
1N4757AP	51	5.0	95	1500	0.25	5.0	38.8	18	90	**1N4757A**
1N4758AP	56	4.5	110	2000	0.25	5.0	42.6	16	80	**1N4758A**
1N4759AP	62	4.0	125	2000	0.25	5.0	47.1	14	70	**1N4759A**
1N4760AP	68	3.7	150	2000	0.25	5.0	51.7	13	65	**1N4760A**
1N4761AP	75	3.3	175	2000	0.25	5.0	56.0	12	60	**1N4761A**
1N4762AP	82	3.0	200	3000	0.25	5.0	62.2	11	55	**1N4762A**
1N4763AP	91	2.8	250	3000	0.25	5.0	69.2	10	50	**1N4763A**
1N4764AP	100	2.5	350	3000	0.25	5.0	76.0	9.0	45	**1N4764A**

Notes :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 5 %.

(2) The revese surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed

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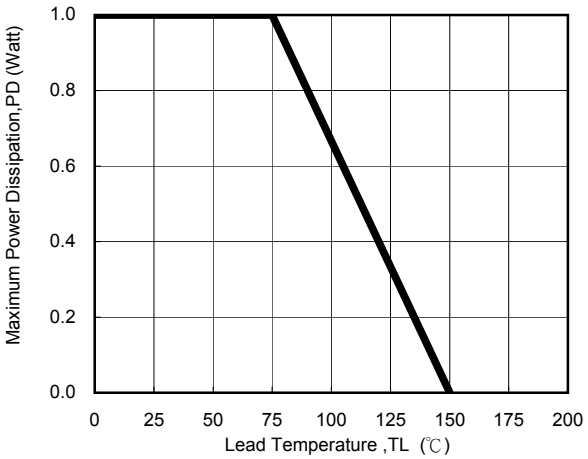

ig. 1 - Power Temperature Derating Curv

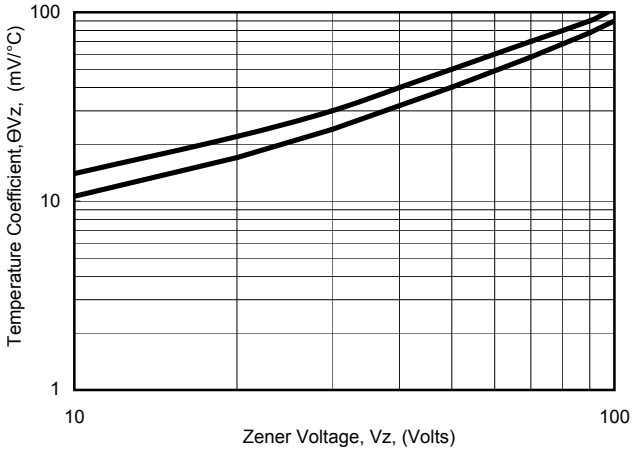

Fig. 2 - Temperature Coefficients v.s. Zener Voltage

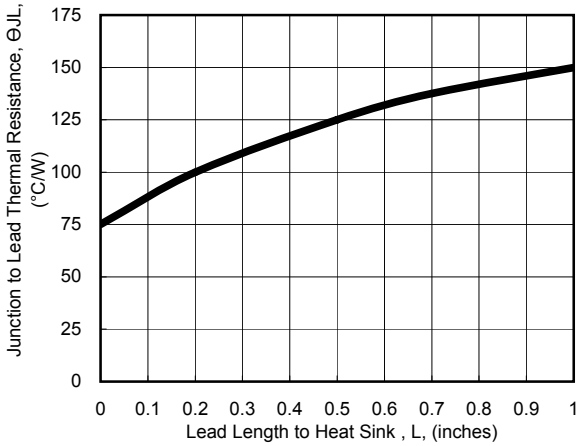

Fig. 3 - Typical Thermal Resistance v.s. Lead Length

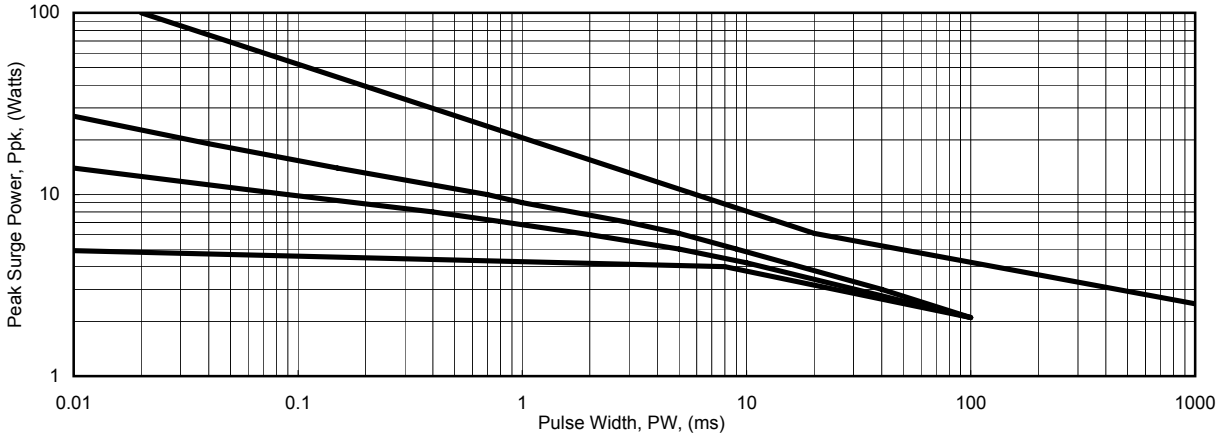

FIG.4 - Maximum Surge Power