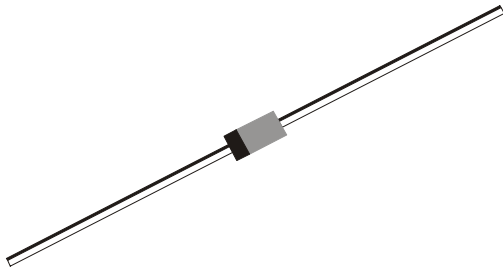


**SILICON GLASS PASSIVATED 1.0 WATT ZENER DIODES**

**1N4728A to 1N4764A  
3.3V to 100V**

**1N4187B to 1N4188B  
110V to 120V**

**DO-41  
Glass Axial Package**



**FEATURES**

These Zeners are best suited for General Purpose Industrial, Entertainment, Military & Space Applications. The Glass Passivated Chips are Hermetically Sealed with Double Studs, Providing Excellent Stability and Reliability.

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation @ T <sub>a</sub> =50°C	P <sub>D</sub>	1	W
Derate above 50°C		6.67	mW/°C
Operating and Storage Temperature	T <sub>stg</sub>	- 65 to+200	°C

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C V<sub>F</sub><1.2V @ 200mA )**

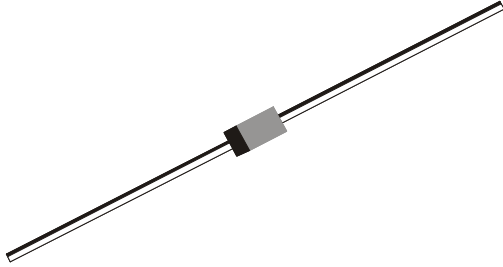
Device	V <sub>ZT</sub> ** @ I <sub>ZT</sub>	r <sub>zt</sub> **	I <sub>ZT</sub>	r <sub>ZK</sub> @ I <sub>ZK</sub>	Temp . Coeff of Zener Voltage typ. %/ °C	I <sub>R</sub>	V <sub>R</sub>	I <sub>ZM</sub>	I <sub>ZSM</sub> *	
	Nominal (V)	MAX (W)	MAX (mA)	MAX (W)	MAX (mA)	Max (mA)	Max (V)	Max (mA)	Max (mA)	
1N4728A	3.3	10	76.0	400	1.00	-0.06	100	1.0	276	1380
1N4729A	3.6	10	69.0	400	1.00	-0.06	100	1.0	252	1260
1N4730A	3.9	9.0	64.0	400	1.00	-0.05	50	1.0	234	1190
1N4731A	4.3	9.0	58.0	400	1.00	-0.03	10	1.0	217	1070
1N4732A	4.7	8.0	53.0	500	1.00	-0.01	10	1.0	193	970
1N4733A	5.1	7.0	49.0	550	1.00	0.01	10	1.0	178	890
1N4734A	5.6	5.0	45.0	600	1.00	0.03	10	2.0	162	810
1N4735A	6.2	2.0	41.0	700	1.00	0.04	10	3.0	146	730
1N4736A	6.8	3.5	37.0	700	1.00	0.05	10	4.0	133	660
1N4737A	7.5	4.0	34.0	700	0.50	0.05	10	5.0	121	605
1N4738A	8.2	4.5	31.0	700	0.50	0.06	10	6.0	110	550
1N4739A	9.1	5.0	28.0	700	0.50	0.06	10	7.0	100	500
1N4740A	10	7.0	25.0	700	0.25	0.07	10	7.6	91	454
1N4741A	11	8.0	23.0	700	0.25	0.07	5	8.4	83	414
1N4742A	12	9.0	21.0	700	0.25	0.07	5	9.1	76	380
1N4743A	13	10	19.0	700	0.25	0.07	5	9.9	69	344
1N4744A	15	14	17.0	700	0.25	0.08	5	11.4	61	304
1N4745A	16	16	15.5	700	0.25	0.08	5	12.2	57	285
1N4746A	18	20	14.0	750	0.25	0.08	5	13.7	50	250
1N4747A	20	22	12.5	750	0.25	0.08	5	15.2	45	225
1N4748A	22	23	11.5	750	0.25	0.08	5	16.7	41	205
1N4749A	24	25	10.5	750	0.25	0.08	5	18.2	38	190
1N4750A	27	35	9.5	750	0.25	0.09	5	20.6	34	170
1N4751A	30	40	8.5	1000	0.25	0.09	5	22.8	30	150
1N4752A	33	45	7.5	1000	0.25	0.09	5	25.1	27	135

\*\* Pulse Condition : 20ms ≤ t<sub>p</sub> ≤ 50ms, Duty Cycle ≤ 2%

\* Rectangle wave form ( t<sub>p</sub>=10ms)

**SILICON GLASS PASSIVATED 1.0 WATT ZENER DIODES**

**DO-41  
Glass Axial Package**



**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C V<sub>F</sub><1.2V @ 200mA)**

Device	V <sub>ZT</sub> ** @ I <sub>ZT</sub>	r <sub>zt</sub> **	I <sub>ZT</sub>	r <sub>ZK</sub> @ I <sub>ZK</sub>	Temp. Coeff of Zener Voltage typ. %/°C	I <sub>R</sub> Max	V <sub>R</sub>	I <sub>ZM</sub> Max	I <sub>ZSM</sub> * Max	
	Nominal (V)	MAX (W)	MAX (mA)	MAX (W)	MAX (mA)					
1N4753A	36	50	7.0	1000	0.25	0.09	5	27.4	25	125
1N4754A	39	60	6.5	1000	0.25	0.09	5	29.7	23	115
1N4755A	43	70	6.0	1500	0.25	0.09	5	32.7	22	110
1N4756A	47	80	5.5	1500	0.25	0.09	5	35.8	19	95
1N4757A	51	95	5.0	1500	0.25	0.09	5	38.8	18	90
1N4758A	56	110	4.5	2000	0.25	0.09	5	42.6	16	80
1N4759A	62	125	4.0	2000	0.25	0.09	5	47.1	14	70
1N4760A	68	150	3.7	2000	0.25	0.09	5	51.7	13	65
1N4761A	75	175	3.3	2000	0.25	0.09	5	56.0	12	60
1N4762A	82	200	3.0	3000	0.25	0.09	5	62.2	11	55
1N4763A	91	250	2.8	3000	0.25	0.09	5	69.2	10	50
1N4764A	100	350	2.5	3000	0.25	0.09	5	76.0	9.0	45
1N4187B	110	450	2.3	4000	0.25	0.10	5	83.6	8.6	72
1N4188B	120	550	2.0	4500	0.25	0.10	5	91.2	7.8	66

Tolerance on Nominal V<sub>Z</sub>:

Device 1N4728A to 1N4764A - Suffix 'A' specifies ± 5% tolerance and without any 'Suffix' ± 10%

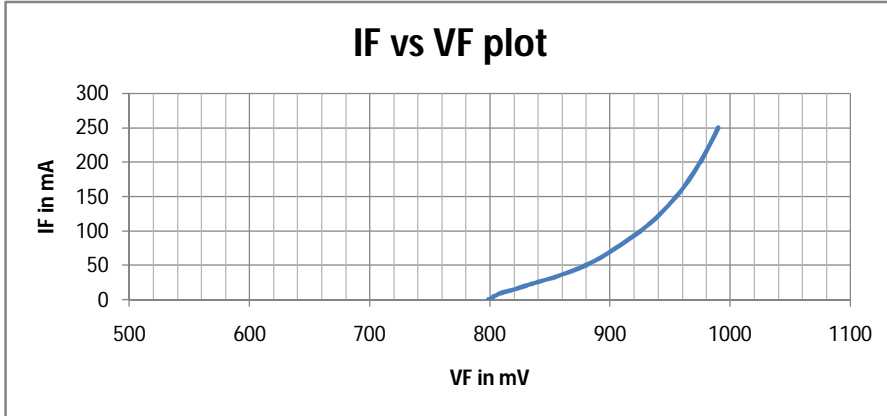
Device 1N4187B to 1N4188B - Suffix 'B' specifies ± 5% tolerance

\*\* Pulse Condition : 20ms ≤ t<sub>p</sub> ≤ 50ms, Duty Cycle ≤ 2%

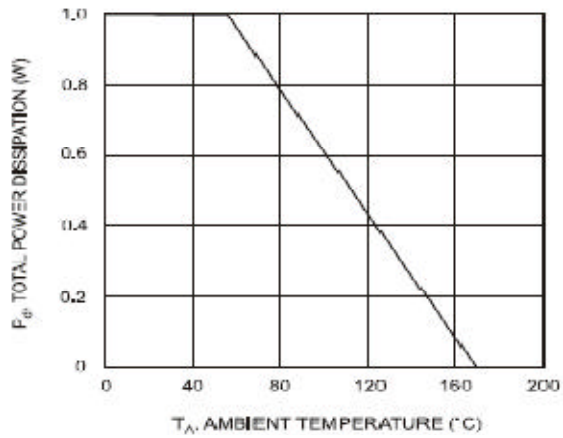
\* Rectangle wave form ( t<sub>p</sub>=10ms)

**CHARACTERISTICS PLOTS**

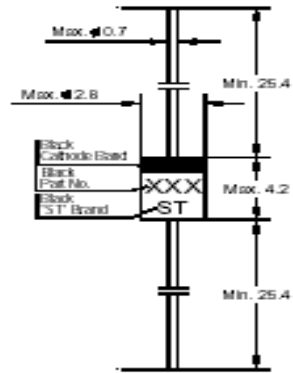
**1. Forward Current vs Forward Voltage (T<sub>j</sub>=25°C)**



**2. Power Dissipation vs Ambient Temperature**



### DO-41 PACKAGE DIMENSION



Glass Case DO-41  
Dimensions in mm



Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



## Customer Notes

### Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of

**Continental Device India Limited**

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119

e-mail@cdil.com www.cdil.com