

VOLTAGE REGULATOR ZENER DIODES

BZD27C 5V1 to 47V



SOD-87

SOD - 87
Surface Mount
Glass Package
RoHS compliant

Polarity : Cathode is indicated by a blue band

APPLICATION:

1. Personal Digital Assistant (PDA)
2. Digital Cameras
3. Portable Instrumentation

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C Unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation $T_{ip}=105^{\circ}\text{C}$	P_{tot}	2.3	W
Power Dissipation PCB mounted $T_{amb}=55^{\circ}\text{C}$	P_{tot}	0.8	W
Non-Repetitive Peak Reverse Power Dissipation $t_p=100\text{ms}$, square pulse; $T_j=25^{\circ}\text{C}$ prior to surge	P_{ZSM}	300	W
Non-Repetitive Peak Reverse Power Dissipation; 10/1000 μs , exponential pulse; $T_j=25^{\circ}\text{C}$ prior to surge	P_{RSM}	150	W
Storage Temperature	T_{stg}	-65 to +175	$^{\circ}\text{C}$
Junction Temperature	T_j	-65 to +175	$^{\circ}\text{C}$

THERMAL RESISTANCE

Junction to Tie Point	$R_{th(j-t-p)}$	30	K/W
Junction to Ambient	$R_{th(j-s)}^1$	150	K/W

Notes:

1. Device mounted on an epoxy glass printed circuit board, 1.5mm thick ; thickness of Cu layer ≥ 40 mm
Per type when used as Voltage Regulator Diodes



Continental Device India Pvt. Limited
An IATF 16949, ISO9001 and ISO 14001 Certified Company



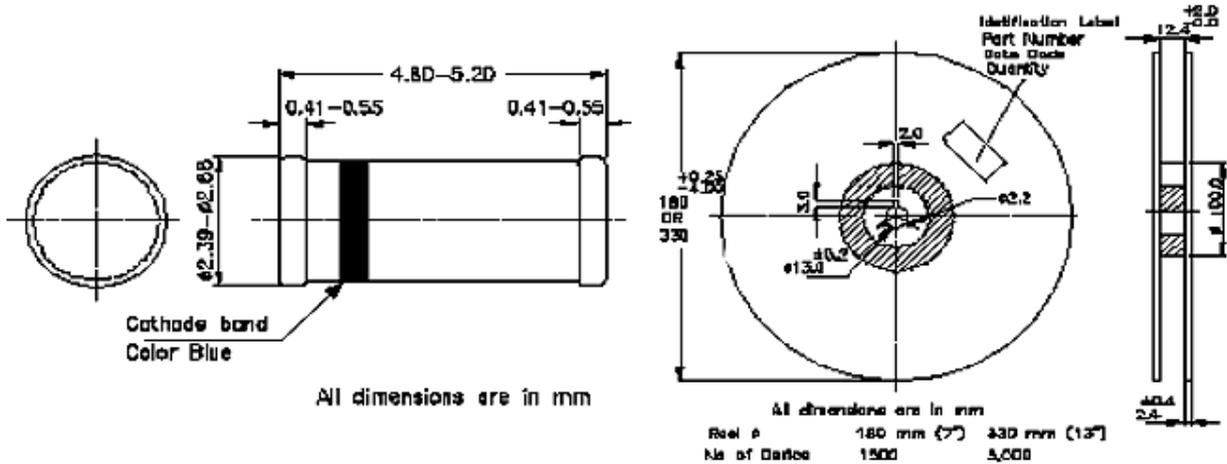
ELECTRICAL CHARACTERISTICS at (Ta = 25 °C Unless otherwise specified) $V_F < 1.2V$ at 200mA

DEVICE	Working Voltage			Differential Resistance	Temperature Coefficient		Test Current	Reverse Current at Reverse Voltage	
	V_Z (V)			r_{diff} (Ω)	S_Z (%/K)			I_R at	V_R
	at I_Z			at I_Z	at I_Z		at I_Z (mA)	(μ A)	(V)
	MIN	NOM	MAX	MAX	MIN	MAX		MAX	
BZD27C 5V1	4.80	5.1	5.40	6	-0.08	-0.02	100	5	1
BZD27C 5V6	5.20	5.6	6.00	4	-0.04	0.04	100	10	2
BZD27C 6V2	5.80	6.2	6.60	3	-0.01	0.06	100	5	2
BZD27C 6V8	6.40	6.8	7.20	3	0.00	0.07	100	10	3
BZD27C 7V5	7.00	7.5	7.90	2	0.00	0.07	100	50	3
BZD27C 8V2	7.70	8.2	8.70	2	0.03	0.08	100	10	3
BZD27C 9V1	8.50	9.1	9.60	4	0.03	0.08	50	10	5
BZD27C 10	9.40	10	10.60	4	0.05	0.09	50	7	7.5
BZD27C 11	10.40	11	11.60	7	0.05	0.10	50	4	8.2
BZD27C 12	11.40	12	12.70	7	0.05	0.10	50	3	9.1
BZD27C 13	12.40	13	14.10	10	0.05	0.10	50	2	10
BZD27C 15	13.80	15	15.60	10	0.05	0.10	50	1	11
BZD27C 16	15.30	16	17.10	15	0.06	0.11	25	1	12
BZD27C 18	16.80	18	19.10	15	0.06	0.11	25	1	13
BZD27C 20	18.80	20	21.20	15	0.06	0.11	25	1	15
BZD27C 22	20.80	22	23.30	15	0.06	0.11	25	1	16
BZD27C 24	22.80	24	25.60	15	0.06	0.11	25	1	18
BZD27C 27	25.10	27	28.90	15	0.06	0.11	25	1	20
BZD27C 30	28.00	30	32.00	15	0.06	0.11	25	1	22
BZD27C 33	31.00	33	35.00	15	0.06	0.11	25	1	24
BZD27C 36	34.00	36	38.00	40	0.06	0.11	10	1	27
BZD27C 39	37.00	39	41.00	40	0.06	0.11	10	1	30
BZD27C 43	40.00	43	46.00	45	0.07	0.12	10	1	33
BZD27C 47	44.00	47	50.00	45	0.07	0.12	10	1	36

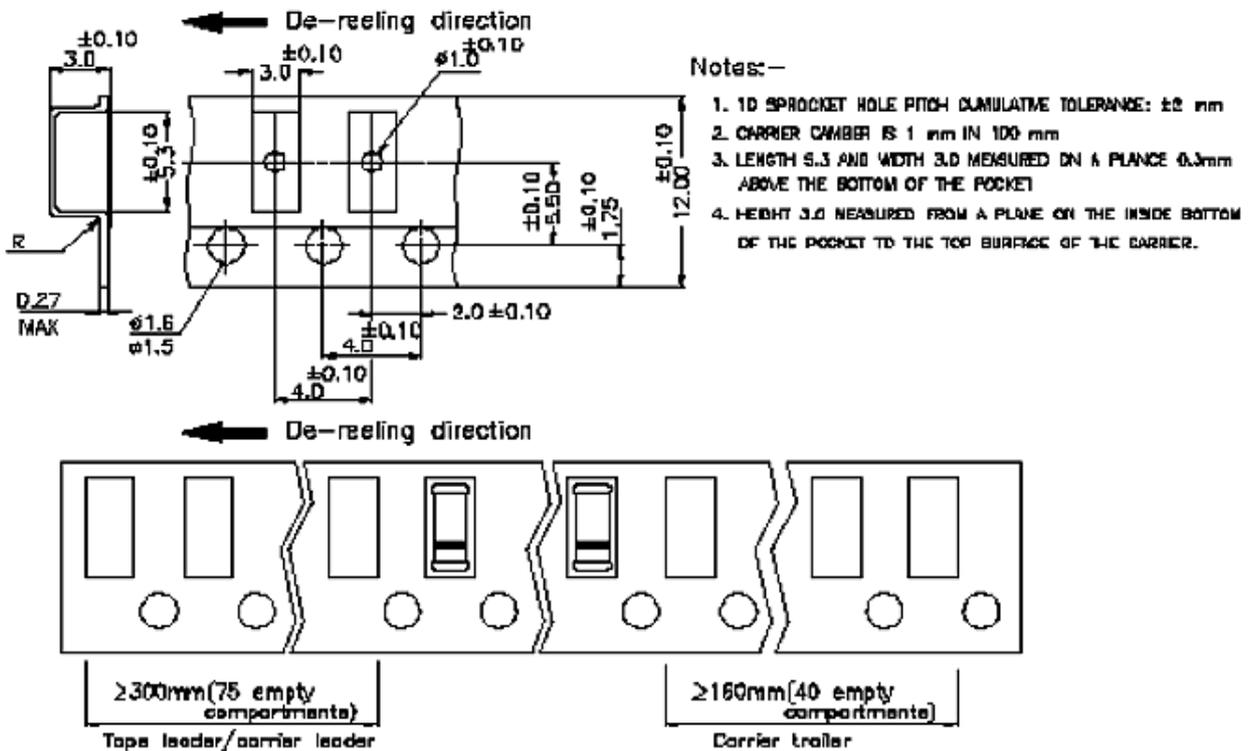
BZD27C5V1_47
Rev03_02022021E

PACKAGE DETAILS

SOD-87 Glass Package



Tape & Reel



PACKAGE	STANDARD PACK	INTERMEDIATE BOX SIZE		OUTER BOX SIZE	
	Details	Size (mm)	Qty	Size (mm)	Qty
SOD87 T&A	1.5K / REEL	183x178x50	6.0K (4 REELS)	360x280x215	36.0K (8 INTERMEDIATE BOX)
	5.0K / REEL	345x345x50	10.0K (2 REELS)	-	-



Recommended Product Storage Environment for Discrete Semiconductor Devices

This storage environment assumes that the Diodes and transistors are packed properly inside the original packing supplied by CDIL.

- Temperature 5 °C to 30 °C
- Humidity between 40 to 70 %RH
- Air should be clean.
- Avoid harmful gas or dust.
- Avoid outdoor exposure or storage in areas subject to rain or water spraying .
- Avoid storage in areas subject to corrosive gas or dust. Product shall not be stored in areas exposed to direct sunlight.
- Avoid rapid change of temperature.
- Avoid condensation.
- Mechanical stress such as vibration and impact shall be avoided.
- The product shall not be placed directly on the floor.
- The product shall be stored on a plane area. They should not be turned upside down. They should not be placed against the wall.

Shelf Life of CDIL Products

The shelf life of products is the period from product manufacture to shipment to customers. The product can be unconditionally shipped within this period. The period is defined as 2 years.

If products are stored longer than the shelf life of 2 years the products shall be subjected to quality check as per CDIL quality procedure.

The products are further warranted for another one year after the date of shipment subject to the above conditions in CDIL original packing.

Floor Life of CDIL Products and MSL Level

When the products are opened from the original packing, the floor life will start.

For this, the following JEDEC table may be referred:

JEDEC MSL Level		
Level	Time	Condition
1	Unlimited	≤30 °C / 85% RH
2	1 Year	≤30 °C / 60% RH
2a	4 Weeks	≤30 °C / 60% RH
3	168 Hours	≤30 °C / 60% RH
4	72 Hours	≤30 °C / 60% RH
5	48 Hours	≤30 °C / 60% RH
5a	24 Hours	≤30 °C / 60% RH
6	Time on Label(TOL)	≤30 °C / 60% RH



Continental Device India Pvt. Limited

An IATF 16949, ISO9001 and ISO 14001 Certified Company



Customer Notes

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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 are 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 Pvt. 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

email@cdil.com www.cdil.com

CIN No. U32109DL1964PTC004291