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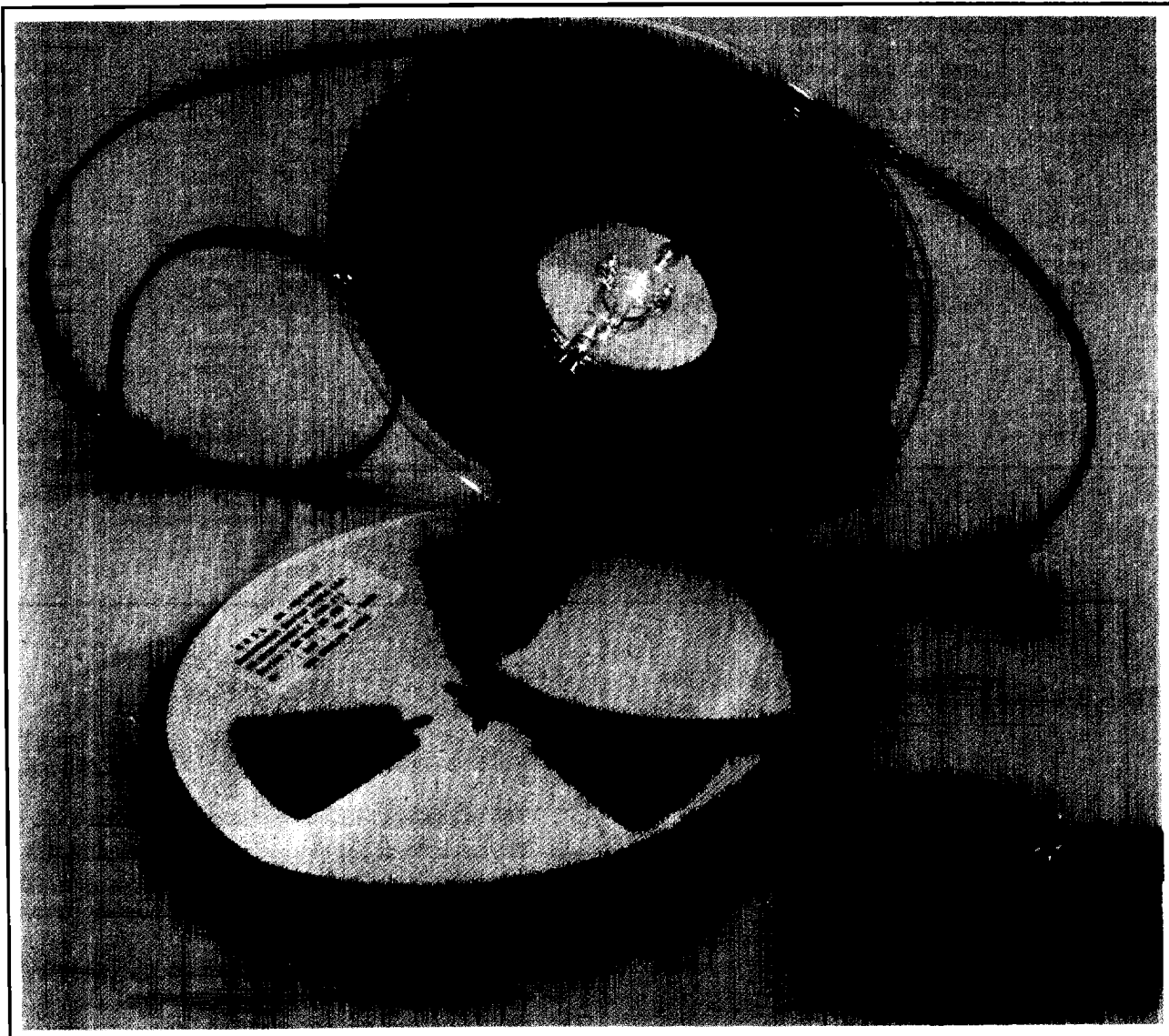


Continental Device India Limited

An IS/ISO 9002 & IECQ certified manufacturer
of quality discrete semiconductor components

Surface Mount SOT-23 Semiconductors
Transistors, Zener Diodes, Switching and Schottky Diodes

Quick Reference Data



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CDILS00001



SEMICONDUCTOR DIVISION

today manufactures

a very wide range of products

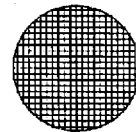
The wide range of CDIL products helps the customer to select all their requirements from a single supplier.

From the **diffused silicon wafers (dice)** both for transistors and diodes (zener & switching), to the **conventional standard leaded parts** (in 11 different packages) to the latest **Surface Mount (SMT) SOT-23 transistors, zener diodes & switching diodes** - CDIL has a product for every need and application.

PRODUCT RANGE :

1. WAFER FABRICATION

- 4" wafer processing capability
- Small Signal Discrete Bipolar Transistors
- Small Signal Switching Diodes and Zener Diodes, suitable for both Axial Package and Radial Package
- Discrete Bipolar Power Transistors
- Small Signal and Power Darlington

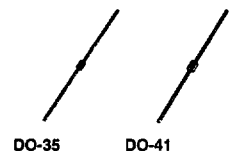


Diffused Wafer

2. CONVENTIONAL PRODUCTS

2.1 DO-35 & DO-41 Glass Axial Diodes:

- 0.5 W, 1 W, 1.3 W and 1.5 W zener diodes
- Switching diodes

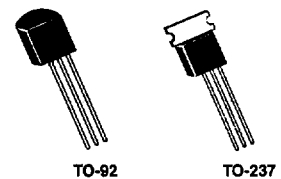


DO-35

DO-41

2.2 TO-92, TO-237 Packages:

- Small Signal Transistors
- Darlington Transistors



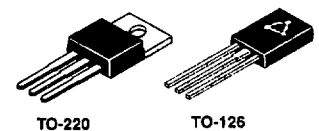
TO-92

TO-237

2.3 TO-220, TO-126

Plastic Packages:

- Power Transistors, upto 75 W
- Darlington Transistors
- Schottkey Barrier Rectifiers, Single and Dual



TO-220

TO-126

SOT-23 TRANSISTORS

Electrical Characteristics (I_a=25 C, Unless Otherwise Specified)

Maximum Ratings

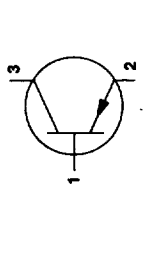
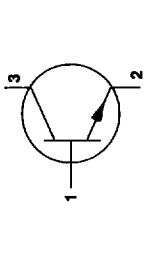
Device #	Type	V _{CE0} (V) Min	V _{CE0} (V) Max	V _{BE0} (V) Min	P _D (W) @ I _a =25 C	I _C (A)	I _{CEO} (nA) Max	V _{CB} (V) @ I _C	I _{EBO} (uA) Max	V _{EB} (V) Max	h _{FE} Min	h _{FE} Max	I _C (mA) @ I _C & V _{CE}	V _{CE(sat)} (V) Max	V _{BE(sat)} (V) Min	I _C (mA) Max	C _{ob} (pF) Typ	f _T (MHz) Min	f _T (MHz) Typ	f _T (MHz) Max	I _C (mA) @ I _C	C _{ie} (pF) Max	N _F @ Freq (dB)(MHz) Max	Marking	
																									V _{CB0} (V) Min
*BC807	PNP	45	5	5	0.25	0.5	100	20	10	5	100	600	100	0.7	0.6	500	8	80	80	10	10	1.6	10	5D	
*BC808	PNP	25	5	5	0.25	0.5	100	20	10	5	100	600	100	0.7	0.6	500	8	80	80	10	10	1.6	10	5H	
*BC817	NPN	45	5	5	0.25	0.5	100	20	10	5	100	600	100	0.7	0.6	500	5	100	100	10	10	1.6	10	6D	
*BC818	NPN	25	5	5	0.25	0.5	100	20	10	5	100	600	100	0.7	0.6	500	5	100	100	10	10	1.6	10	6H	
*BC846	NPN	65	6	6	0.25	0.1	15	30	15	30	110	450	2	0.6	0.6	100	2.5	100	100	10	10	1.6	10	1D	
*BC847	NPN	45	5	5	0.25	0.1	15	30	15	30	110	800	2	0.6	0.6	100	2.5	100	100	10	10	1.6	10	1H	
*BC848	NPN	30	5	5	0.25	0.1	15	30	15	30	110	800	2	0.6	0.6	100	2.5	100	100	10	10	1.6	10	1M	
*BC849	NPN	30	5	5	0.25	0.1	15	30	15	30	200	800	2	0.6	0.6	100	2.5	100	100	10	10	1.6	10	2D	
*BC850	NPN	45	5	5	0.25	0.1	15	30	15	30	200	800	2	0.6	0.6	100	2.5	100	100	10	10	1.6	10	3D	
*BC856	PNP	65	5	5	0.25	0.1	15	30	15	30	125	475	2	0.65	0.65	100	4.5	100	100	10	10	1.6	10	3M	
*BC857	PNP	45	5	5	0.25	0.1	15	30	15	30	125	800	2	0.65	0.65	100	4.5	100	100	10	10	1.6	10	4D	
*BC858	PNP	30	5	5	0.25	0.1	15	30	15	30	125	800	2	0.65	0.65	100	4.5	100	100	10	10	1.6	10	4H	
*BC859	PNP	30	5	5	0.25	0.1	15	30	15	30	125	800	2	0.65	0.65	100	4.5	100	100	10	10	1.6	10	1V	
*BC860	PNP	45	5	5	0.25	0.1	15	30	15	30	125	800	2	0.65	0.65	100	4.5	100	100	10	10	1.6	10	1W	
*BF820	NPN	#300	5	5	0.25	0.05	10	200	10	5	50	25	20	0.60	0.60	30	1.6	60	60	10	10	1.6	10	1X	
BF821	NPN	300	5	5	0.25	0.05	10	200	10	5	50	25	20	0.60	0.60	30	1.6	60	60	10	10	1.6	10	1Y	
BF822	NPN	250	5	5	0.25	0.05	10	200	10	5	50	25	20	0.60	0.60	30	1.6	60	60	10	10	1.6	10	1Y	
BF823	NPN	250	5	5	0.25	0.05	10	200	10	5	50	25	20	0.60	0.60	30	1.6	60	60	10	10	1.6	10	1Y	
BF840	NPN	40	4	4	0.25	0.025	100	20	10	5	67	222	1	0.80	0.80	30	1.6	60	60	10	10	1.6	10	NC	
BF841	NPN	40	4	4	0.25	0.025	100	20	10	5	36	125	1	0.80	0.80	30	1.6	60	60	10	10	1.6	10	ND	
CMBT918	NPN	15	3	3	0.225	0.35	50	15	0.01	3	20	300	150	0.40	0.40	10	1.7	600	600	4	4	2	6	3B	
CMBT222A	NPN	75	6	6	0.25	0.6	10	60	0.01	3	100	300	150	0.3	0.3	150	8.0	300	300	20	20	2	4	1P	
CMBT2907A	PNP	60	5	5	0.25	0.6	10	60	0.01	3	100	300	150	0.40	0.40	150	8.0	300	300	20	20	2	4	2F	
CMBT3904	PNP	60	6	6	0.25	0.2	50	30	0.01	3	100	300	10	0.20	0.20	10	4.0	300	300	10	10	8	5	1A	
CMBT3906	PNP	40	5	5	0.25	0.2	50	30	0.01	3	100	300	10	0.25	0.25	10	4.5	250	250	10	10	8	5	2A	
CMBT4401	PNP	60	6	6	0.25	0.6	100	35	0.01	3	100	300	150	0.4	0.4	150	8.0	250	250	20	20	10	4	2X	
CMBT4403	PNP	40	4	4	0.25	0.6	100	35	0.01	3	100	300	150	0.4	0.4	150	8.0	250	250	20	20	10	4	2X	
CMBT5401	PNP	160	5	5	0.25	0.5	50	120	0.05	4	60	240	10	0.2	0.2	150	8.5	200	200	20	20	10	8	2T	
CMBT5551	PNP	180	6	6	0.25	0.5	50	120	0.05	4	80	250	10	0.15	0.15	100	6.0	100	100	10	10	10	8	2L	
CMBTA05	NPN	60	4	4	0.25	0.5	100	60	0.1	10	100	100	100	0.25	0.25	100	100	100	100	100	100	3.0	10	G1	
CMBTA06	NPN	80	4	4	0.25	0.5	100	80	0.1	10	100	100	100	0.25	0.25	100	100	100	100	100	100	3.0	10	1H	
CMBTA13	NPN	30	10	10	0.25	0.3	100	30	0.1	10	10000	100	100	0.25	0.25	100	100	100	100	100	100	3.0	10	1G	
CMBTA14	NPN	30	10	10	0.25	0.3	100	30	0.1	10	20000	100	100	0.25	0.25	100	100	100	100	100	100	3.0	10	1M	
CMBTA42	NPN	300	6	6	0.25	0.5	100	200	0.1	6	40	10	10	0.5	0.5	20	0.90	50	50	10	10	3.0	10	1N	
CMBTA55	PNP	60	4	4	0.25	0.5	100	60	0.1	3	100	100	100	0.25	0.25	100	100	100	100	100	100	3.0	10	1D	
CMBTA56	PNP	80	4	4	0.25	0.5	100	80	0.1	3	100	100	100	0.25	0.25	100	100	100	100	100	100	3.0	10	1D	
CMBTA92	PNP	300	5	5	0.25	0.5	250	200	0.1	5	200	400	10	0.3	0.3	20	6.0	50	50	100	100	3.0	10	2H	
CSA1162GR	PNP	15	5	5	0.15	0.8	100	50	0.1	5	200	400	2	0.25	0.25	100	7.0	80	80	120	10	10	10	2G	
CSA1362GR	PNP	60	5	5	0.15	0.8	100	15	0.1	5	200	400	2	0.25	0.25	100	7.0	80	80	120	10	10	10	2D	
CSC2712GR	PNP	50	5	5	0.15	0.8	100	60	0.1	5	200	400	2	0.25	0.25	100	7.0	80	80	120	10	10	10	3F	
CSD1306E	PNP	30	5	5	0.2	0.7	1000	20	0.1	5	400	800	150	0.5	0.5	500	12	80	80	250	150	10	10	AE	
																									1F
																									6E

*h_{FE} selection available

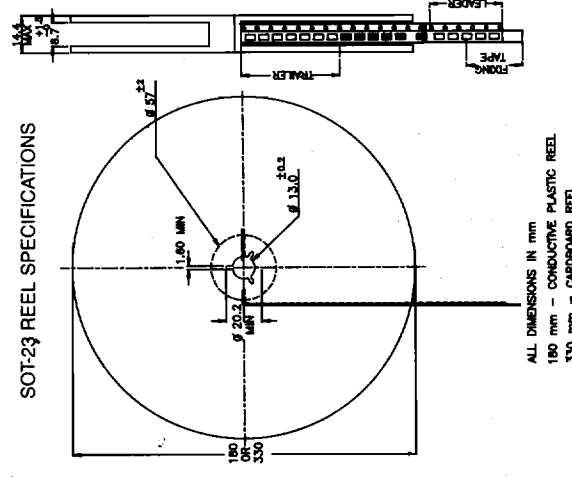
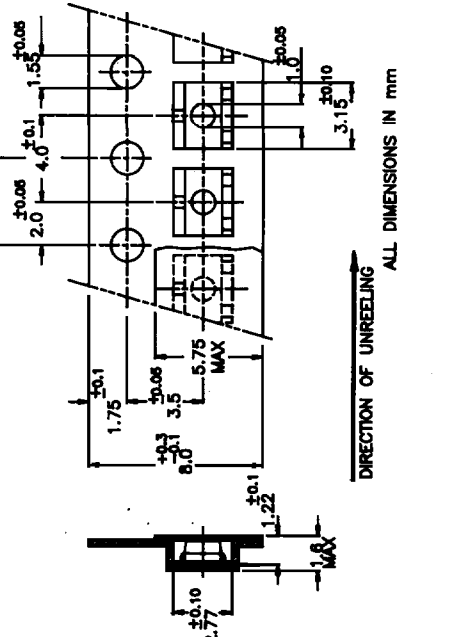
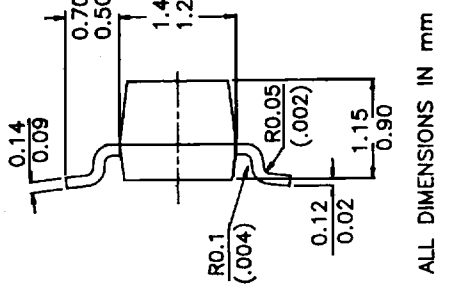
h_{FE}

I_C & V_{CE}

N_F@ Freq (dB)(MHz)



PACKAGE : SOT-23



Notes :

8MM TAPE Size of Reel

- | No. of Devices | 180 mm (7") | 330 mm (13") |
|----------------|-------------|--------------|
| | 3,000 pcs | 10,000 pcs |
- The bandolier of 180mm reel contains at least 3,000 devices.
 - The bandolier of 330 mm reel contains at least 10,000 devices.
 - No more than 0.5% missing devices/reel. 15 empty compartments for 180mm reel and 50 empty compartments for 330 mm reel.
 - Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
 - The carrier tape (leader) starts with at least 75 empty positions (equivalent to 330mm), in order to fix the carrier tape a self adhesive tape of 20 to 50mm is applied.
- At the end of the bandolier at least 40 empty positions (equivalent to 160mm) are there. For fixing auto the reel a self adhesive tape of 20 to 50mm is applied.

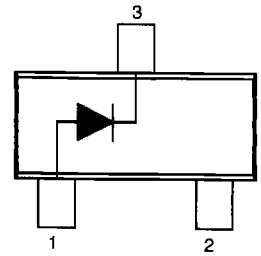
SOT-23 ZENER DIODES, BZX 84C SERIES
(EQUIVALENT TO BZX55C SERIES IN DO-35 PACKAGE)

$P_D = 0.3 \text{ W}$, Electrical characteristics (at $T_a = 25^\circ \text{ C}$.) $V_F = 0.9 \text{ V max}$ @ $I_F = 10 \text{ mA}$ for all types

Device #	Zener Voltage*		r_{ZT} at I_{ZT} (ohm) Max	I_Z mA	r_{ZT} at I_{ZT} (ohm) Max	I_Z mA	Temp. Coeff. Typ	I_R @ V_R $T_a = 25^\circ \text{ C}$ (μA) Max	V_R (V)	Marking
	V_Z (V) Min	Max								
BZX84C4V7	4.40	5.00	80	5	500	1	-1.4	3.0	2	Z1
BZX84C5V1	4.80	5.40	60	5	480	1	-0.8	2.0	2	Z2
BZX84C5V6	5.20	6.00	40	5	400	1	1.2	1.0	2	Z3
BZX84C6V2	5.80	6.60	10	5	150	1	2.3	3.0	4	Z4
BZX84C6V8	6.40	7.20	15	5	80	1	3	2.0	4	Z5
BZX84C7V5	7.00	7.90	15	5	80	1	4	1.0	5	Z6
BZX84C8V2	7.70	8.70	15	5	80	1	4.6	0.7	5	Z7
BZX84C9V1	8.50	9.60	15	5	100	1	5.5	0.5	6	Z8
BZX84C10V	9.40	10.60	20	5	150	1	6.4	0.2	7	Z9
BZX84C11V	10.40	11.60	20	5	150	1	7.4	0.1	8	Y1
BZX84C12V	11.40	12.70	25	5	150	1	8.4	0.1	8	Y2
BZX84C13V	12.40	14.10	30	5	170	1	9.4	0.1	8	Y3
BZX84C15V	13.80	15.60	30	5	200	1	11.4	0.05	10.5	Y4
BZX84C16V	15.30	17.10	40	5	200	1	12.4	0.05	11.2	Y5
BZX84C18V	16.80	19.10	45	5	225	1	14.4	0.05	12.6	Y6
BZX84C20V	18.80	21.20	55	5	225	1	16.4	0.05	14	Y7
BZX84C22V	20.80	23.30	55	5	250	1	18.4	0.05	15.4	Y8
BZX84C24V	22.80	25.60	70	5	250	1	20.4	0.05	16.8	Y9
BZX84C27V	25.10	28.90	80	2	300	0.5	23.4	0.05	18.9	Y10
BZX84C30V	28.00	32.00	80	2	300	0.5	26.6	0.05	21	Y11
BZX84C33V	31.00	35.00	80	2	325	0.5	29.7	0.05	23.1	Y12
BZX84C36V	34.00	38.00	90	2	350	0.5	33.0	0.05	25.2	Y13
BZX84C39V	37.00	41.00	130	2	350	0.5	36.4	0.05	27.3	Y14
BZX84C43V	40.00	46.00	150	2	375	0.5	41.2	0.05	30.1	Y15
BZX84C47V	44.00	50.00	170	2	375	0.5	46.1	0.05	32.9	Y16

PIN-CONFIGURATION

- 1= ANODE
- 2= NC
- 3= CATHODE



BZX84C SERIES

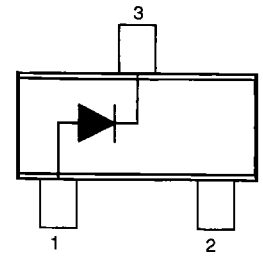
SOT-23 ZENER DIODES, CMBZ SERIES
(EQUIVALENT TO 1N52XX SERIES IN DO-35 PACKAGE)

$P_D = 0.3 \text{ W}$, Electrical characteristics (at $T_a = 25^\circ \text{ C}$.) $V_F = 0.9 \text{ V max}$ @ $I_F = 10 \text{ mA}$ for all types

Device #	Zener Voltage*			r_{ZT} at I_{ZT} Max Ohm	I_{ZT} mA	Z_{ZK} Max Ohm	Z_{ZK} mA	I_R @ V_R $T_a = 25^\circ \text{ C}$ Max μA	V_R V	Marking
	V_Z Min V	I_{ZT} Nom V	Max V							
CMBZ5230B	4.40	4.70	5.00	19	20	1900	0.25	5.00	2.0	8E
CMBZ5231B	4.80	5.10	5.40	17	20	1800	0.25	5.00	2.0	8F
CMBZ5232B	5.20	5.60	6.00	11	20	1600	0.25	5.00	3.0	8G
CMBZ5233B	5.70	6.00	6.30	7	20	1600	0.25	5.00	3.5	8H
CMBZ5234B	5.80	6.20	6.60	7	20	1000	0.25	5.00	4.0	8J
CMBZ5235B	6.40	6.80	7.20	5	20	750	0.25	3.00	5.0	8K
CMBZ5236B	7.12	7.50	7.87	6	20	500	0.25	3.00	6.0	8L
CMBZ5237B	7.70	8.20	8.70	8	20	500	0.25	3.00	6.5	8M
CMBZ5238B	8.27	8.70	9.13	8	20	600	0.25	3.00	6.5	8N
CMBZ5239B	8.50	9.10	9.60	10	20	600	0.25	3.00	7.0	8P
CMBZ5240B	9.40	10.00	10.60	17	20	600	0.25	3.00	8.0	8Q
CMBZ5241B	10.40	11.00	11.60	22	20	600	0.25	2.00	8.4	8R
CMBZ5242B	11.40	12.00	12.70	30	20	600	0.25	1.00	9.1	8S
CMBZ5243B	12.40	13.00	14.10	13	9.5	600	0.25	0.50	9.9	8T
CMBZ5244B	13.30	14.00	14.70	15	9.0	600	0.25	0.10	10	8U
CMBZ5245B	13.80	15.00	15.60	16	8.5	600	0.25	0.10	11	8V
CMBZ5246B	15.30	16.00	17.10	17	7.8	600	0.25	0.10	12	8W
CMBZ5247B	16.15	17.00	17.85	19	7.4	600	0.25	0.10	13	8X
CMBZ5248B	16.80	18.00	19.10	21	7.0	600	0.25	0.10	14	8Y
CMBZ5249B	18.05	19.00	19.95	23	6.6	600	0.25	0.10	14	8Z
CMBZ5250B	18.80	20.00	21.20	25	6.2	600	0.25	0.10	15	81A
CMBZ5251B	20.80	22.00	23.30	29	5.6	600	0.25	0.10	17	81B
CMBZ5252B	22.80	24.00	25.60	33	5.2	600	0.25	0.10	18	81C
CMBZ5253B	23.75	25.00	26.25	35	5.0	600	0.25	0.10	19	81D
CMBZ5254B	25.10	27.00	28.90	41	4.6	600	0.25	0.10	21	81E
CMBZ5255B	26.60	28.00	29.40	44	4.5	600	0.25	0.10	21	81F
CMBZ5256B	28.00	30.00	32.00	49	4.2	600	0.25	0.10	23	81G
CMBZ5257B	31.00	33.00	35.00	58	3.8	700	0.25	0.10	25	81H

PIN-CONFIGURATION

- 1= ANODE
- 2= NC
- 3= CATHODE



CMBZ SERIES

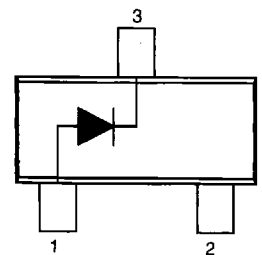
SOT-23 ZENER DIODES, CZ1W SERIES
(EQUIVALENT TO 1N47XX SERIES IN DO-41 PACKAGE)

MINIMUM ORDER QTY. : 300K/VOLTAGE TYPE
 $P_D = 0.6 \text{ W}$, Electrical characteristics (at $T_a = 25^\circ \text{ C}$.) $V_F = 1.5 \text{ V max}$ @ $I_F = 200 \text{ mA}$ for all types

Device #	Zener Voltage*		r_{ZT} at I_{ZT} Max Ohm	I_{ZT} mA	I_{ZK} at I_{ZT} Max Ohm	I_{ZK} mA	I_R at V_R $T_a = 25^\circ \text{ C}$ Max μA	V_R V	Temp. Coeff. Typ	Marking
	V_Z Min V	I_{ZT} Max V								
CZ1W4.7V	4.40	5.00	8	53	500	1.00	10.00	1.0	-0.01	4Z7
CZ1W5.1V	4.80	5.40	7	49	550	1.00	10.00	1.0	0.01	5Z1
CZ1W5.6V	5.20	6.00	5	45	600	1.00	10.00	2.0	0.03	5Z6
CZ1W6.2V	5.80	6.60	2	41	700	1.00	10.00	3.0	0.04	6Z2
CZ1W6.8V	6.40	7.20	3.5	37	700	1.00	10.00	4.0	0.05	6Z8
CZ1W7.5V	7.00	7.90	4	34	700	0.50	10.00	5.0	0.05	7Z5
CZ1W8.2V	7.70	8.70	4.5	31	700	0.50	10.00	6.0	0.06	8Z2
CZ1W9.1V	8.50	9.60	5	28	700	0.50	10.00	7.0	0.06	9Z1
CZ1W10V	9.40	10.60	7	25	700	0.25	10.00	7.6	0.07	10Z
CZ1W11V	10.40	11.60	8	23	700	0.25	5.00	8.4	0.07	11Z
CZ1W12V	11.40	12.70	9	21	700	0.25	5.00	9.1	0.07	12Z
CZ1W13V	12.40	14.10	10	19	700	0.25	5.00	9.9	0.07	13Z
CZ1W15V	13.80	15.60	14	17	700	0.25	5.00	11.4	0.08	15Z
CZ1W16V	15.30	17.10	16	15.5	700	0.25	5.00	12.2	0.08	16Z
CZ1W18V	16.80	19.1	20	14	750	0.25	5.00	13.7	0.08	18Z
CZ1W20V	18.80	21.20	22	12.5	750	0.25	5.00	15.2	0.08	20Z
CZ1W22V	20.80	23.30	23	11.5	750	0.25	5.00	16.7	0.08	22Z
CZ1W24V	22.80	25.60	25	10.5	750	0.25	5.00	18.2	0.08	24Z
CZ1W27V	25.10	28.90	35	9.5	750	0.25	5.00	20.6	0.09	27Z
CZ1W30V	28.00	32.00	40	8.5	1000	0.25	5.00	22.8	0.09	30Z
CZ1W33V	31.00	35.00	45	7.5	1000	0.25	5.00	25.1	0.09	33Z
CZ1W36V	34.00	38.00	50	7.0	1000	0.25	5.00	27.4	0.09	36Z
CZ1W39V	37.00	41.00	60	6.5	1000	0.25	5.00	29.7	0.09	39Z
CZ1W43V	40.00	46.00	70	6.0	1500	0.25	5.00	32.7	0.09	43Z
CZ1W47V	44.00	50.00	80	5.5	1500	0.25	5.00	35.8	0.09	47Z

PIN-CONFIGURATION

- 1= ANODE
- 2= NC
- 3= CATHODE



CZ1W SERIES

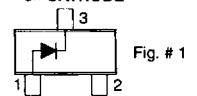
* Pulse test $20 \text{ ms} \leq t_p \leq 50 \text{ ms}$, Typical V_Z tolerance $\pm 5\%$

GENERAL PURPOSE SWITCHING DIODES (RATINGS PER DIODE)

Device #	TYPE	Forward Voltage		V_{RRM} (V) MIN	Reverse Current		I_F Max mA	C_d (pF) Max	t_{rr} @ I_R		P_D max W	Marking	Fig. #
		V_F @ I_F (V) Max.	I_F (mA)		I_R @ V_R (μ A) Max.	V_R (V)			ns	mA			
BAS16	SINGLE	1.0	50	85	1	75	215	2.0	4	1	0.250	A6	1
BAV70	DUAL	1.0	50	75	2.5	70	215	1.5	4	1	0.250	A4	2
BAV74	DUAL	1.0	100	50	0.1	50	215	2.0	4	1	0.250	A5	2
BAV99	DUAL	1.0	50	85	1	75	215	1.5	4	1	0.250	A7	4
BAW56	DUAL	1.0	50	85	1	75	215	2.0	4	1	0.250	A1	3
SD914	SINGLE	1.0	10	100	5	75	200	4.0	15	10	0.225	5D	1

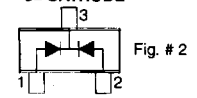
PIN-CONFIGURATION

- 1= ANODE
- 2= NC
- 3= CATHODE



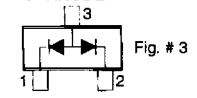
PIN-CONFIGURATION

- 1= ANODE
- 2= ANODE
- 3= CATHODE



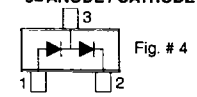
PIN-CONFIGURATION

- 1= CATHODE
- 2= CATHODE
- 3= ANODE



PIN-CONFIGURATION

- 1= ANODE
- 2= CATHODE
- 3= ANODE / CATHODE



SCHOTTKY BARRIER DIODES (BAT54 SERIES) (RATINGS PER DIODE)

Device #	TYPE	Forward Voltage		V_{RRM} (V) MIN	Reverse Current		I_F Max mA	C_d (pF) Max	t_{rr} @ I_R		P_D max W	Marking	Fig. #
		V_F @ I_F (V) Max.	I_F (mA)		I_R @ V_R (μ A) Max.	V_R (V)			ns	mA			
BAT54	SINGLE	1	100	30	2.0	25	200	15	5	1	0.230	4L	1
BAT54A	DUAL	1	100	30	2.0	25	200	15	5	1		42	3
BAT54C	DUAL	1	100	30	2.0	25	200	15	5	1		43	2
BAT54S	DUAL	1	100	30	2.0	25	200	15	5	1		44	4

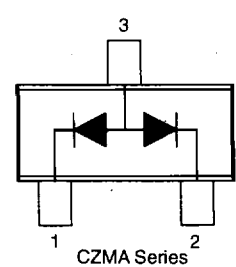
SOT-23 DUAL ZENER DIODES (COMMON ANODE), CZMA SERIES

$P_D = 0.3$ W, Electrical characteristics (at $T_a = 25^\circ\text{C}$.) $V_F = 0.9$ V max @ $I_F = 10$ mA per diode

Device #	Zener voltage * V_Z @ I_{ZT}		r_{ZT} at I_{ZT} Max. Ohm	I_{ZT} mA	r_{ZK} at I_{ZK} Max. Ohm	I_{ZK} mA	Temp. Coeff Typ	I_R @ V_R $T_a = 25^\circ\text{C}$ Max. uA	V_R V	Marking
	Min V	Max V								
CZMA4V7	4.40	5.00	80	5	500	1	-1.4	3.0	2	D4.7
CZMA5V1	4.80	5.40	60	5	480	1	-0.8	2.0	2	D5.1
CZMA5V6	5.20	6.00	40	5	400	1	1.2	1.0	2	D5.6
CZMA6V2	5.80	6.60	10	5	150	1	2.3	3.0	4	D6.2
CZMA6V8	6.40	7.20	15	5	80	1	3	2.0	4	D6.8
CZMA7V5	7.00	7.90	15	5	80	1	4	1.0	5	D7.5
CZMA8V2	7.70	8.70	15	5	80	1	4.6	0.7	5	D8.2
CZMA9V1	8.50	9.60	15	5	100	1	5.5	0.5	6	D9.1
CZMA10V	9.40	10.60	20	5	150	1	6.4	0.2	7	D10
CZMA11V	10.40	11.60	20	5	150	1	7.4	0.1	8	D11
CZMA12V	11.40	12.70	25	5	150	1	8.4	0.1	8	D12
CZMA13V	12.40	14.10	30	5	170	1	9.4	0.1	8	D13
CZMA15V	13.80	15.60	30	5	200	1	11.4	0.05	10.5	D15
CZMA16V	15.30	17.10	40	5	200	1	12.4	0.05	11.2	D16
CZMA18V	16.80	19.10	45	5	225	1	14.4	0.05	12.6	D18
CZMA20V	18.80	21.20	55	5	225	1	16.4	0.05	14	D20
CZMA22V	20.80	23.30	55	5	250	1	18.4	0.05	15.4	D22
CZMA24V	22.80	25.60	70	5	250	1	20.4	0.05	16.8	D24
CZMA27V	25.10	28.90	80	2	300	0.5	23.4	0.05	18.9	D27
CZMA30V	28.00	32.00	80	2	300	0.5	26.6	0.05	21	D30
CZMA33V	31.00	35.00	80	2	325	0.5	29.7	0.05	23.1	D33
CZMA36V	34.00	38.00	90	2	350	0.5	33.0	0.05	25.2	D36
CZMA39V	37.00	41.00	130	2	350	0.5	36.4	0.05	27.3	D39

PIN-CONFIGURATION

- 1= CATHODE
- 2= CATHODE
- 3= ANODE



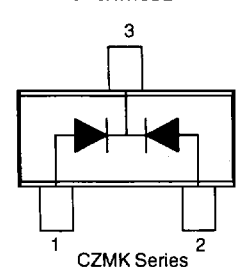
SOT-23 DUAL ZENER DIODES (COMMON CATHODE), CZMK SERIES

$P_D = 0.3$ W, Electrical characteristics (at $T_a = 25^\circ\text{C}$.) $V_F = 0.9$ V max @ $I_F = 10$ mA per diode

Device #	Zener voltage * V_Z @ I_{ZT}		r_{ZT} at I_{ZT} Max. Ohm	I_{ZT} mA	r_{ZK} at I_{ZK} Max. Ohm	I_{ZK} mA	Temp. Coeff Typ	I_R @ V_R $T_a = 25^\circ\text{C}$ Max. uA	V_R V	Marking
	Min V	Max V								
CZMK4V7	4.40	5.00	80	5	500	1	-1.4	3.0	2	ZK
CZMK5V1	4.80	5.40	60	5	480	1	-0.8	2.0	2	ZL
CZMK5V6	5.20	6.00	40	5	400	1	-1.2	1.0	2	ZM
CZMK6V2	5.80	6.60	10	5	150	1	2.3	3.0	4	ZN
CZMK6V8	6.40	7.20	15	5	80	1	3	2.0	4	ZP
CZMK7V5	7.00	7.90	15	5	80	1	4	1.0	5	ZT
CZMK8V2	7.70	8.70	15	5	80	1	4.6	0.7	5	ZV
CZMK9V1	8.50	9.60	15	5	100	1	5.5	0.5	6	ZW
CZMK10V	9.40	10.60	20	5	150	1	6.4	0.2	7	ZX
CZMK11V	10.40	11.60	20	5	150	1	7.4	0.1	8	ZY
CZMK12V	11.40	12.70	25	5	150	1	8.4	0.1	8	ZZ
CZMK13V	12.40	14.10	30	5	170	1	9.4	0.1	8	YB
CZMK15V	13.80	15.60	30	5	200	1	11.4	0.05	10.5	YC
CZMK16V	15.30	17.10	40	5	200	1	12.4	0.05	11.2	YD
CZMK18V	16.80	19.10	45	5	225	1	14.4	0.05	12.6	YE
CZMK20V	18.80	21.20	55	5	225	1	16.4	0.05	14	YF
CZMK22V	20.80	23.30	55	5	250	1	18.4	0.05	15.4	YG
CZMK24V	22.80	25.60	70	5	250	1	20.4	0.05	16.8	YH
CZMK27V	25.10	28.90	80	2	300	0.5	23.4	0.05	18.9	YJ
CZMK30V	28.00	32.00	80	2	300	0.5	26.6	0.05	21	YK
CZMK33V	31.00	35.00	80	2	325	0.5	29.7	0.05	23.1	YL
CZMK36V	34.00	38.00	90	2	350	0.5	33	0.05	25.2	YM
CZMK39V	37.00	41.00	130	2	350	0.5	36.4	0.05	27.3	YN

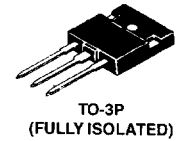
PIN-CONFIGURATION

- 1= ANODE
- 2= ANODE
- 3= CATHODE



2.4 TO-3P, Fully Isolated Plastic Package:

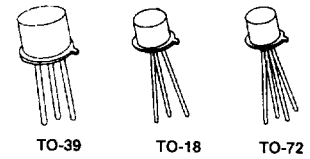
- High Voltage Power Transistors, upto 1500 V
- Power Darlington Transistors
- Schottky Barrier Rectifiers, Single and Dual



2.5 TO-39, TO-18 and TO-72

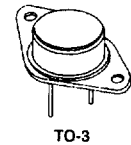
Metal Can Devices:

- Small Signal Transistors
- RF Transistors
- Switching Transistors
- Darlington Transistors



2.6 TO-3, Metal Can Power:

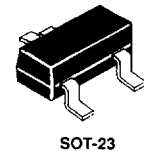
- High Voltage Transistors, upto 1500 V
- High Power General Purpose Transistors, upto 150 W
- Darlington Transistors



3. SURFACE MOUNTED SEMICONDUCTORS

SOT-23 Surface Mount Package

- Transistors
- Zener Diodes
- Switching Diodes, Single and Dual



Continental Device India Limited, CDIL, pioneered the manufacture of silicon semiconductor devices in India, in the year 1964.

CDIL Electronics Group is today in the field of:

- SEMICONDUCTOR DEVICES
- RELAYS AND SWITCHES
- TELECOMMUNICATION SUB-ASSEMBLIES AND MODULES
- SUB-CONTRACT PC BOARD ASSEMBLY SERVICES

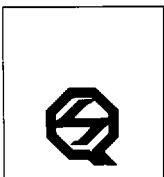
CDIL today is completely integrated and comprises of:

- 9000 sq meters of environmentally controlled space devoted to manufacturing semiconductor devices,
- Engineering (technical) resource group of around 300 people totally committed to TQM,
- Its own **wafer fabrication** facility to cater to specific customer needs,
- an in-hour **R&D facility** with many developments and new processes to its credit, and is geared to meet every challenge.

CDIL is committed to supporting its worldwide customers on their component requirements, by offering quality products at a fair price.

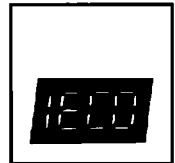
CDIL is also actively involved in **subcontract assembly services for the complete discrete semiconductor product range.**

CDIL has thus attained a worldwide stature as a manufacturer of a wide range of quality components.

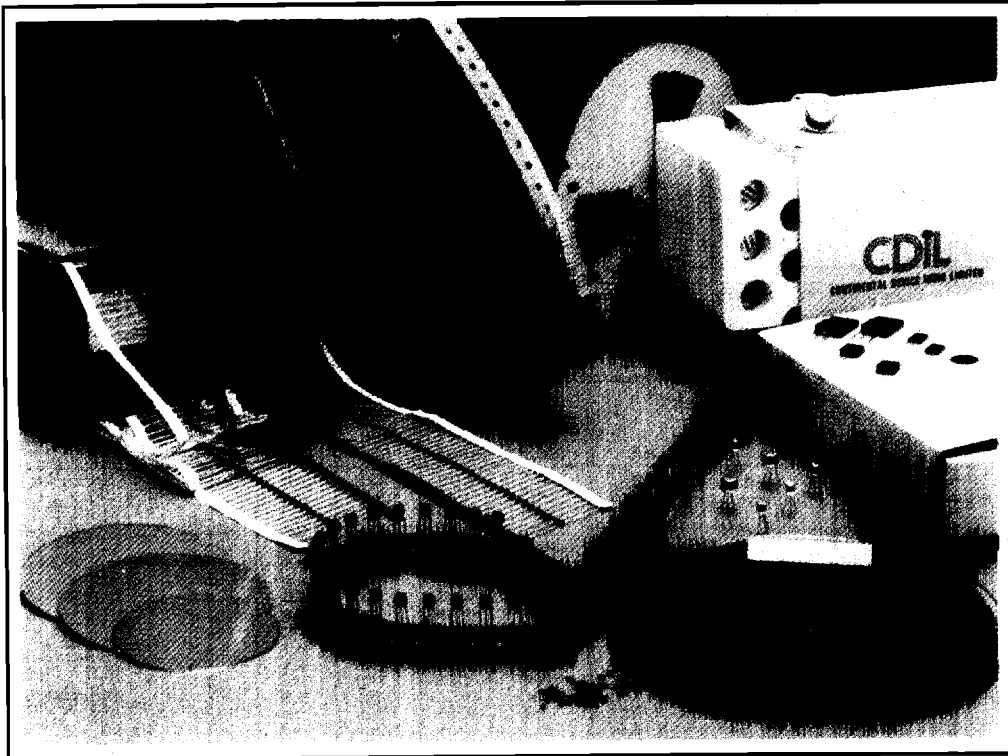


IS/ISO 9002
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CDIL, an IS/ISO 9002 certified Company
manufactures
a very wide range of
discrete semiconductor components



IS/IECQC 700000,
IS/IECQC 750100



DO-35	BCW 31/32	MJE 340/350	CD 9013	MPSA 05/06	BC 107/108/109	CSD 880
1N 746A - 1N 759A	BCW 60B/61B		CD 9014	MPSA 13	BC 140/141	MJE 2955T
1N 4148/1N 914	BCX 17/18	TO-3	CD 9015	MPSA 42/92	BC 160/161	MJE 3055T
1N 957B - 1N 977B	BCX70G/71G	2N 3055	CD 9016	MPSA 44	BC 177/178	TIP 29/A/B/C
1N 5230B - 1N 5262B	BF 820 TO 823	2N 3773	CD 9018	MPSA 55/56	BC 300 to 303	TIP 30/A/B/C
BZX55C 4V7 - 47V	BSR 14/15/16	BU 109	CIL 2482	MPSH30	BCY 56/57/58/59	TIP 31/A/B/C
BZX79C 4V7 - 47V	CMBT 2222A	BU 205	CO 38P	PN 2222A/2907A	BCY 70/71	TIP 32/A/B/C
BZX83C 4V7 - 47V	CMBT 2907A	MJ 900	CSA 733		BCY 78/79	TIP 41/A/B/C
DB-3 (DIAC)	CMBT 3904/3906		CSA 970	TO-18, TO-39 & TO-72	BD 115	TIP 42/A/B/C
DB-4 (DIAC)	CMBT 5401/5551	TO-92 & TO-237	CSA 1013	2N 918	BF 182	TIP 47/48/49/50
	CMBT 4401/4403	2N 3904/3906	CSA 1015	2N 930A	BF 259	TIP 110/111/112
DO-41	CMBT 918	2N 4401/4403	CSC 2383	2N 1711	BF 337	TIP 115/116/117
1N 4732A - 1N 4764A	CMBTA 05/06	2N 5401/5551	CSA 643	2N 1893	BFX 85	TIP 120/121/122
BZX85C 4V7 - 47V	CMBTA 13/14	2N 6714 - 6720	CSA 708	2N 2102	BFY 50/51/52	TIP 125/126/127
	CMBTA 42/92	BC 327.16/25/40	CSA 720	2N 2218A		BD 241A/B/C
	CMBTA 55/56	BC 328.16/25/40	CSC 388ATM	2N 2219A	TO-220	
SOT-23		BC 337.16/25/40	CSC 535	2N 2222A	2N 6107	TO-3P
BAS 16	TO-126	BC 338.16/25/40	CSC 945	2N 2905A	2N 6109	CSA 1301F
BAV 70	BD 135/137/139	BC 368/369	CSC 1008	2N 2907A	2N 6292	CSC 3280F
BAV 74	BD 136/138/140	BC 546B/556B	CSC 1213	2N 3019	BD 239/BD 239C	CSB 817F/CSD1047F
BAV 99	BD 233/235/237	BC 547B/557B	CSC 1393	2N 3053	BD 240/A/B/C	TIP 33CF/34CF
BAW 56	BD 234/236/238	BC 548B/558B	CSC 1394	2N 3251A	BD 242/A/B/C	TIP 2955/3055F
SD 914	BF 459/469	BC 635 to 640	CSC 1395	2N 3440	BD 243/A/B/C	TIP 2955HVF
BZX84C 4V7-47V	BF 471/472	BF 199	CSC 1815	2N 3501	BD 244/A/B/C	TIP 3055HVF
BC 807/BC 808	CSB 649A/CSD 669A	BF 240/241	CSC 2330	2N 3503	CSA 940	
BC 817/BC 818	CSB 744A	BF 420/421	CSC 2331	2N 3700	CSC 2033	
BC 846/BC 847	CSB 772/CSD 882	BF 422/423	CSC 2331	2N 4033	CSC 2233	
BC 848/BC 849	CSD 1506	CD 8050/8550	MPS 651	2N 4036/4037	CSC 2238	
BC 850/860	CSD 1563	CD 9011	MPS 751	2N 5320/5321/5322	CSC 2335	
BC 856/BC 857	MJE 182	CD 9012	MPS 2222A/2907A	2N 5415/5416	CSD 288	
BC 858/BC 859			MPS 6517			

hFE selection available