

Web Site
www.cdil.com

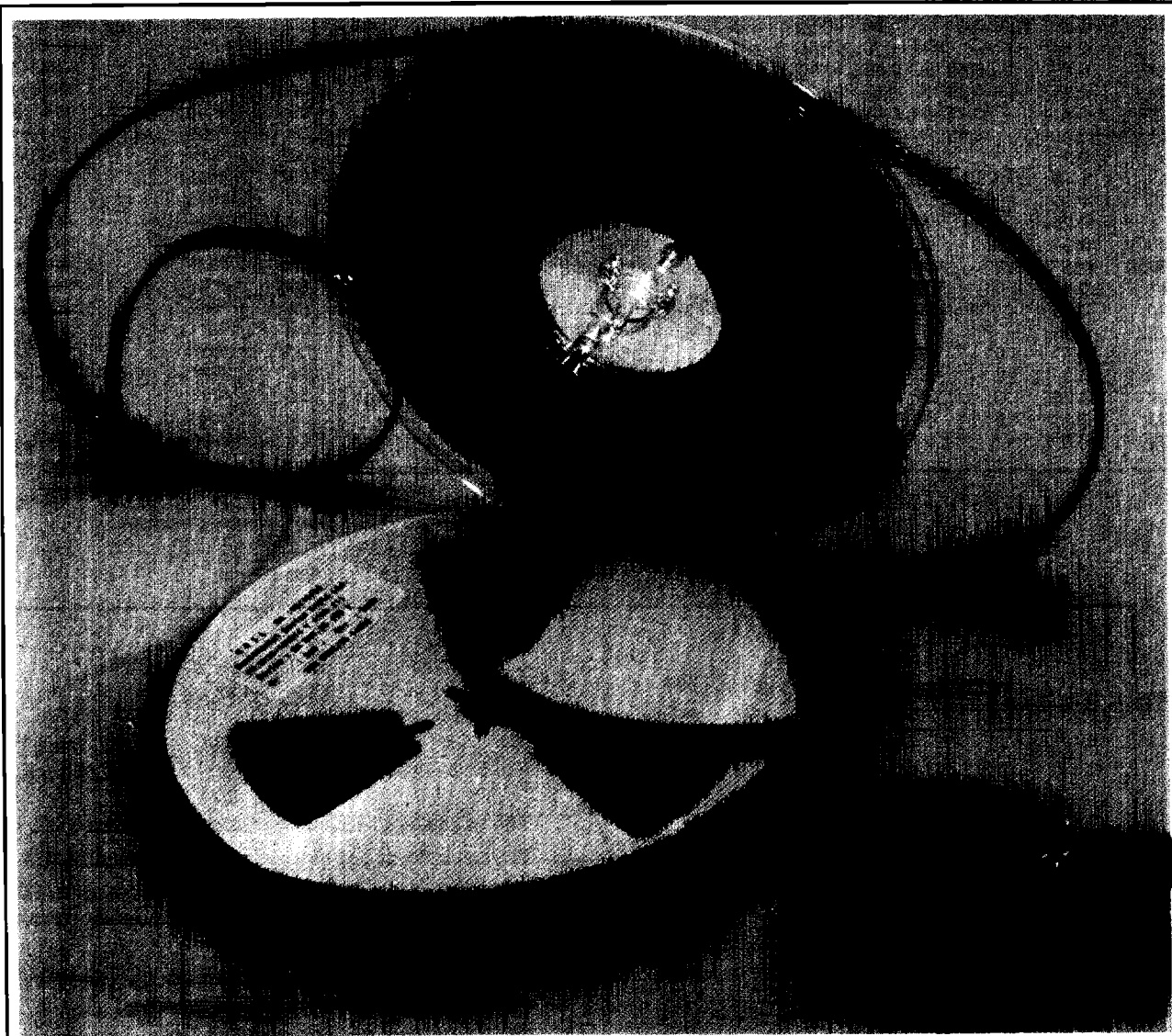


Continental Device India Limited

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



CONTINENTAL DEVICE INDIA LIMITED

C-120, Naraina Industrial Area, New Delhi 110028, India
Phone: (91-11) 5796150 • Fax: (91-11) 5795290, 5799569
e-mail : sales@cdil.com web site : www.cdil.com



CDILS00001



SEMICONDUCTOR DIVISION

today manufactures
a very wide range of products

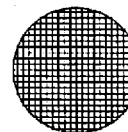
The wide range of CDIL products helps the customer to select all their requirements from a single supplier.

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

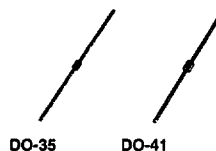


Diffused Wafer

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

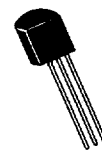


DO-35

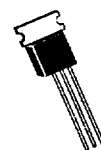
DO-41

2.2 TO-92, TO-237 Packages:

- Small Signal Transistors
- Darlington Transistors



TO-92

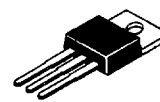


TO-237

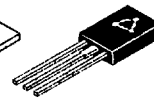
2.3 TO-220, TO-126

Plastic Packages:

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



TO-220



TO-126

SOT-23 TRANSISTORS

Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)

Device #	Type	V _{CE0} (V)	V _{CE0} (V)	V _{BE0} (V)	P _D (W)	I _C (A)	I _{CEO} (nA)	V _{CB} (V)	I _{EB0} (uA)	V _{EB} (V)	h _{FE}	I _C & V _{CE} (mA)	V _{CE(sat)} (V)	V _{BE(sat)} (V)	I _C (mA)	C _{ob} (pF)	f _T (MHz)	I _C (mA)	N _F @Freq (dB)(MHz)	Marking	
		Min	Min	Min	@Ta=25°C	(A)	Max	@	Max	Max	Min	Max	Max	Min	Max	Max	Typ	Min	Max	Max	
*BC807	PNP	**50	45	5	0.25	0.5	100	20	10	5	100	100	0.7	0.6	500	8	80	10		5D	
*BC808	PNP	**30	25	5	0.25	0.5	100	20	10	5	100	100	0.7	0.6	500	8	80	10		5H	
*BC817	NPN	**50	45	5	0.25	0.5	100	20	10	5	100	100	0.7	0.6	500	5	100	10		6D	
*BC818	NPN	**30	25	5	0.25	0.5	100	20	10	5	100	100	0.7	0.6	500	5	100	10		6H	
*BC846	NPN	65	65	6	0.25	0.1	15	30	10	5	110	2	0.6	0.6	100	2.5	100	10	0.001	1D	
*BC847	NPN	50	45	5	0.25	0.1	15	30	10	5	110	2	0.6	0.6	100	2.5	100	10	0.001	1H	
*BC848	NPN	30	30	5	0.25	0.1	15	30	10	5	110	2	0.6	0.6	100	2.5	100	10	0.001	1M	
*BC849	NPN	30	30	5	0.25	0.1	15	30	10	5	200	2	0.6	0.6	100	2.5	100	10	0.001	2D	
*BC850	NPN	50	45	5	0.25	0.1	15	30	10	5	200	2	0.6	0.6	100	2.5	100	10	0.001	2H	
*BC856	PNP	80	65	5	0.25	0.1	15	30	10	5	125	2	0.65	0.65	100	4.5	100	10	0.001	3D	
*BC857	PNP	50	45	5	0.25	0.1	15	30	10	5	125	2	0.65	0.65	100	4.5	100	10	0.001	3H	
*BC858	PNP	30	30	5	0.25	0.1	15	30	10	5	125	2	0.65	0.65	100	4.5	100	10	0.001	3M	
*BC859	PNP	30	30	5	0.25	0.1	15	30	10	5	125	2	0.65	0.65	100	4.5	100	10	0.001	4D	
*BC860	PNP	50	45	5	0.25	0.1	15	30	10	5	125	2	0.65	0.65	100	4.5	100	10	0.001	4H	
*BF820	NPN	300	#300	5	0.25	0.05	10	200	10	5	50	25	0.60	0.60	30	1.6	60	10		1V	
BF821	PNP	300	#300	5	0.25	0.05	10	200	10	5	50	25	0.80	0.80	30	1.6	60	10		1W	
BF822	NPN	250	250	5	0.25	0.05	10	200	10	5	50	25	0.60	0.60	30	1.6	60	10		1X	
BF823	PNP	250	250	5	0.25	0.05	10	200	10	5	50	25	0.60	0.60	30	1.6	60	10		1Y	
BF840	NPN	40	40	4	0.25	0.025	100	20	0.01	3	67	1	0.40	0.40	10	0.3	380	1		NC	
BF841	NPN	40	40	4	0.25	0.025	100	20	0.01	3	36	1	0.40	0.40	10	0.3	380	1		ND	
CMBT918	NPN	30	15	3	0.225	0.35	50	15	0.01	3	20	3	0.3	0.6	150	1.7	600	4	60	3B	
CMBT2222A	NPN	75	40	6	0.25	0.6	10	60	0.01	3	100	150	0.30	1.20	150	8.0	300	20	0.001	1P	
CMBT2907A	PNP	60	60	5	0.25	0.6	10	50	0.01	3	100	150	0.40	1.30	150	8.0	300	50		2F	
CMBT3904	NPN	60	40	6	0.25	0.2	50	30			100	300	0.20	0.65	10	4.0	300	10		1A	
CMBT3906	PNP	40	40	5	0.25	0.2	50	30			100	300	0.25	0.65	10	4.5	250	10		2A	
CMBT4401	NPN	60	40	6	0.25	0.6	100	35			100	150	0.4	0.75	150	8.0	250	20		2X	
CMBT4403	PNP	40	40	5	0.25	0.6	100	35			100	150	0.4	0.75	150	8.5	200	20		2T	
CMBT5401	PNP	160	150	5	0.25	0.5	50	120			60	10	0.2	1.00	10	6.0	100	10	8	2L	
CMBT5551	NPN	180	160	6	0.25	0.6	50	120	0.05	4	80	10	0.15	1.00	10	6.0	100	10		G1	
CMBTA05	NPN	60	60	4	0.25	0.5	100	60			100	100	0.25	0.25	100	1.00	100	10		1H	
CMBTA06	NPN	80	80	4	0.25	0.5	100	80			100	100	0.25	0.25	100	1.00	100	10		1G	
CMBTA13	NPN	30	**30	10	0.25	0.3	100	30	0.1	10	10000	100	1.5	1.5	100	1.5	125	10		1M	
CMBTA14	NPN	30	**30	10	0.25	0.3	100	30	0.1	10	20000	100	1.5	1.5	100	1.5	125	10		1N	
CMBTA42	NPN	300	300	6	0.25	0.5	100	200	0.1	6	40	10	0.5	0.90	20	0.90	50	100		1D	
CMBTA55	PNP	60	60	4	0.25	0.5	100	60			100	100	0.25	0.25	100	0.90	50	100		2H	
CMBTA56	PNP	80	80	4	0.25	0.5	100	80			100	100	0.25	0.25	100	0.90	50	100		2G	
CMBTA92	PNP	300	300	5	0.25	0.5	250	200	0.1	3	40	10	0.5	0.5	20	6.0	50	10	10	0.001	2D
CSA1162GR	PNP	50	50	5	0.15	0.15	100	50	0.1	5	200	2	0.3	0.3	100	7.0	80	1		3F	
CSA1362GR	PNP	15	15	5	0.2	0.8	100	15	0.1	5	200	100	0.25	0.25	400	13	120	1		AE	
CSC2712GR	PNP	60	50	5	0.15	0.15	100	60	0.1	5	200	2	0.25	0.25	100	12	80	1	10	0.001	1F
CSD1306E	NPN	30	15	5	0.2	0.7	1000	20			400	150	0.5	0.5	500		250	150		6E	

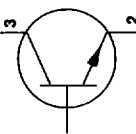
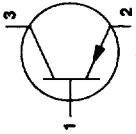
@ C_{ie} (Typ)

h_{FE} selection available

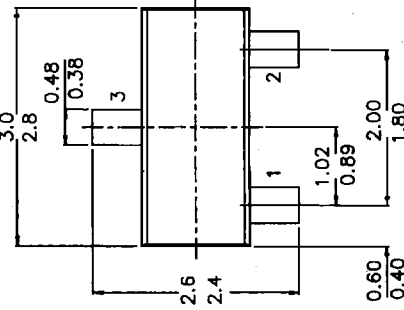
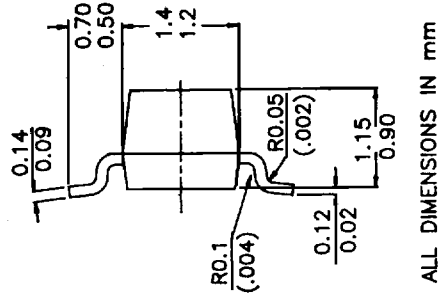
**V_{CEs} # V_{CEr}

PIN CONFIGURATION (NPN)
1 = BASE
2 = EMITTER
3 = COLLECTOR

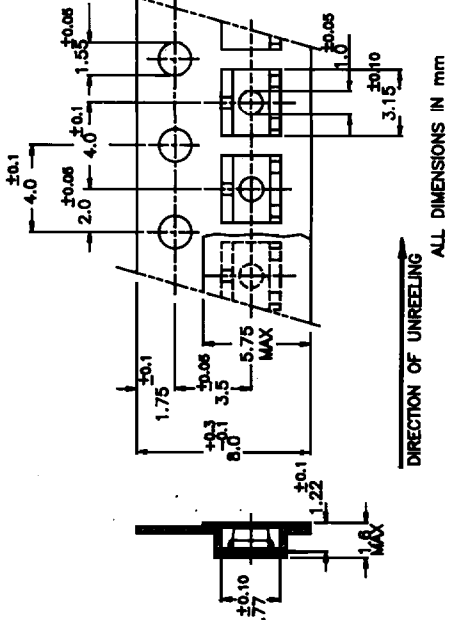
PIN CONFIGURATION (PNP)
1 = BASE
2 = EMITTER
3 = COLLECTOR



PACKAGE : SOT-23



TAPE SPECIFICATION FOR SURFACE MOUNTING DEVICE



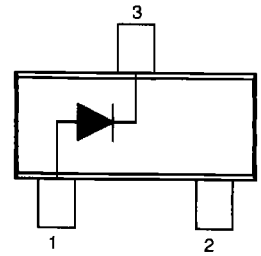
SOT-23 ZENER DIODES, BZX 84C SERIES (EQUIVALENT TO BZX55C SERIES IN DO-35 PACKAGE)

$P_D = 0.3 \text{ W}$, 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* V_Z (V)		r_{ZT} at I_{ZT} (ohm) Max	I_{ZT} mA	r_{ZT} at I_{ZT} (ohm) Max	I_{ZT} mA	Temp. Coeff.	I_R @ V_R $T_a = 25^\circ \text{ C}$ (μA) Max	V_R (V)	Marking
	Min	Max								
BZX84C4V7	4.40	5.00	80	5	500	1	-1.4	3.0	2	Z1
BZX84C5V1	4.80	5.40	80	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

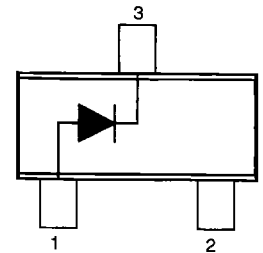
SOT-23 ZENER DIODES, CMBZ SERIES (EQUIVALENT TO 1N52XX SERIES IN DO-35 PACKAGE)

$P_D = 0.3 \text{ W}$, 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* V_Z @ I_{ZT} Min V Nom V Max V			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
	Min	Nom	Max							
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)

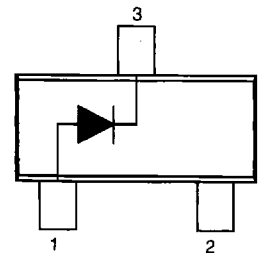
MINIMUM ORDER QTY. : 300K/VOLTAGE TYPE

$P_D = 0.6 \text{ W}$, 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* V_Z @ I_{ZT} Min V Max V		r_{ZT} at I_{ZT} Max Ohm	I_{ZT} mA	r_{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.	Marking
	Min	Max								
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 $V_F @ I_F$ (V) Max.	I_F (mA)	V_{RRM} (V) MIN	Reverse Current $I_R @ V_R$ (μA) Max.	V_R (V)	I_F Max mA	C_d (pF) Max	$t_{rr} @ I_R$ ns Max	I_R mA	P_D max W	Marking	Fig. #
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

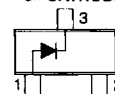


Fig. # 1

PIN-CONFIGURATION

- 1= ANODE
2= ANODE
3= CATHODE

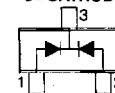


Fig. # 2

PIN-CONFIGURATION

- 1= CATHODE
2= CATHODE
3= ANODE

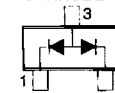


Fig. # 3

PIN-CONFIGURATION

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

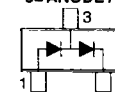


Fig. # 4

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

Device #	TYPE	Forward Voltage $V_F @ I_F$ (V) Max.	I_F (mA)	V_{RRM} (V) MIN	Reverse Current $I_R @ V_R$ (μA) Max.	V_R (V)	I_F Max mA	C_d (pF) Max	$t_{rr} @ I_R$ ns Max	I_R mA	P_D max W	Marking	Fig. #
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

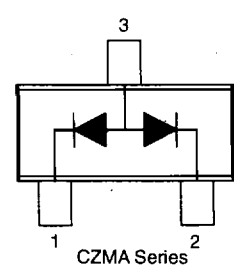
SOT-23 DUAL ZENER DIODES (COMMON ANODE), CZMA SERIES

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

Device #	Zener voltage * $V_Z @ I_{ZT}$ Min V	Max V	r_{ZT} at I_{ZT} Max. Ohm	I_{ZT} mA	r_{ZK} at I_{ZK} Max. Ohm	I_{ZK} mA	Temp. Coeff Typ	$I_R @ V_R$ $T_a = 25^\circ C$ Max. uA	V_R V	Marking
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



CZMA Series

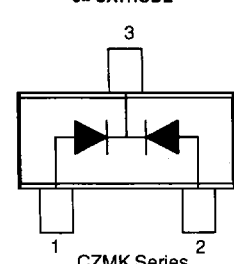
SOT-23 DUAL ZENER DIODES (COMMON CATHODE), CZMK SERIES

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

Device #	Zener voltage * $V_Z @ I_{ZT}$ Min V	Max V	r_{ZT} at I_{ZT} Max. Ohm	I_{ZT} mA	r_{ZK} at I_{ZK} Max. Ohm	I_{ZK} mA	Temp. Coeff Typ	$I_R @ V_R$ $T_a = 25^\circ C$ Max. uA	V_R V	Marking
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

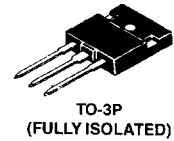
- 1= ANODE
2= ANODE
3= CATHODE



CZMK Series

2.4 TO-3P, Fully Isolated Plastic Package:

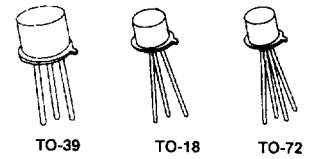
- High Voltage Power Transistors, upto 1500 V
- Power Darlington Transistors
- Schottky Barrier Rectifiers, Single and Dual



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

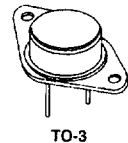
Metal Can Devices:

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



2.6 TO-3, Metal Can Power:

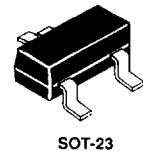
- High Voltage Transistors, upto 1500 V
- High Power General Purpose Transistors, upto 150 W
- Darlington Transistors



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

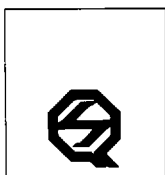
CDIL today is completely integrated and comprises of:

- 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.

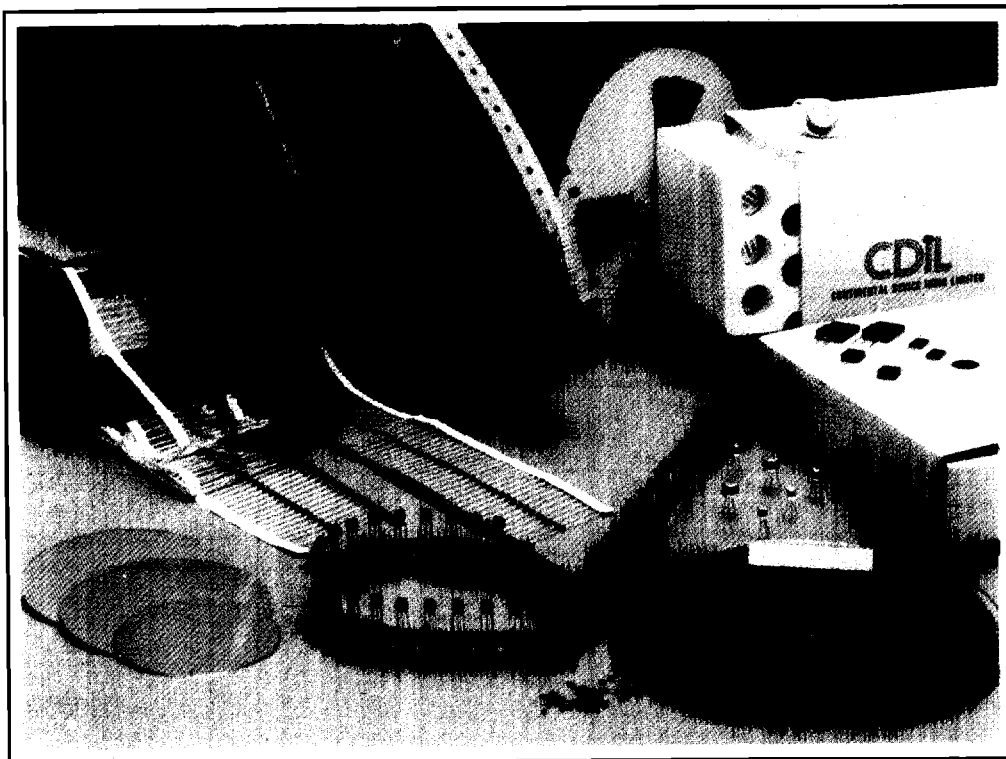


IS/ISO 9002
Lic # QSC/L-000019-1

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



IS/IECQC 700000,
IS/IECQC 750100



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

hFE selection available