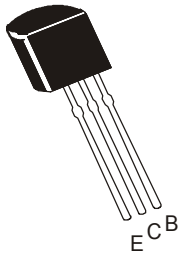


**NPN COMPLEMENTARY SILICON TRANSISTOR**

**CD2383**



**TO-92  
Plastic Package**

**Vertical Deflection Output and Class B Sound Output Applications of Color T.V**

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

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Emitter Voltage	$V_{CEO}$	160	V
Collector Base Voltage	$V_{CBO}$	160	V
Emitter Base Voltage	$V_{EBO}$	6	V
Collector Current Continuous	$I_C$	1	A
Base Current Continuous	$I_B$	500	mA
Power Dissipation	$P_D$	700	mW
Operating And Storage Junction Temperature Range	$T_j, T_{stg}$	-55 to +150	°C

**ELECTRICAL CHARACTERISTICS ( Ta=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE			UNIT
			MIN	TYP	MAX	
Collector Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=10mA, I_B=0$	160			V
Collector Cut off Current	$I_{CBO}$	$V_{CB}=150V, I_E = 0$			1	$\mu A$
Emitter Cut off Current	$I_{EBO}$	$V_{BE}=6V, I_C = 0$			1	$\mu A$
DC Current Gain	$h_{FE}^*$	$V_{CE}=5V, I_C=200mA$	60		320	
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C =500mA, I_B=50mA$			1.5	V
Base Emitter on Voltage	$V_{BE(on)}^*$	$V_{CE}=5V, I_C=5mA$	0.45		0.75	V
<b><u>DYNAMIC CHARACTERISTICS</u></b>						
Gain Bandwith Product	$f_T$	$I_C=200mA, V_{CE}=5V$	20	100		MHz
Output Capacitance	$C_{ob}$	$I_C=0, V_{CB}=10V$ $f=1MHz$			20	pF

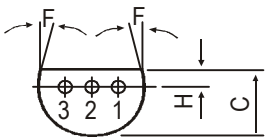
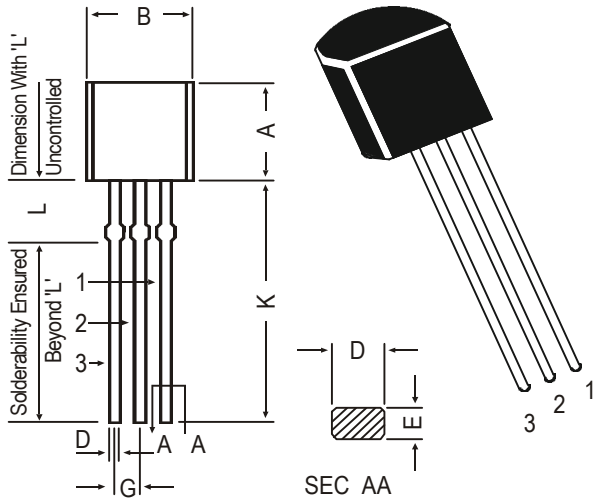
\*Pulse Condition: Width  $\leq 300ms$ , Duty Cycle  $\leq 2\%$ .

CLASSIFICATION	R	O	Y
$h_{FE}$	60-120	100-200	160-320

**TO-92  
Plastic Package**

**TO-92 Plastic Package**

**TO-92 Transistors on Tape and Ammo Pack**

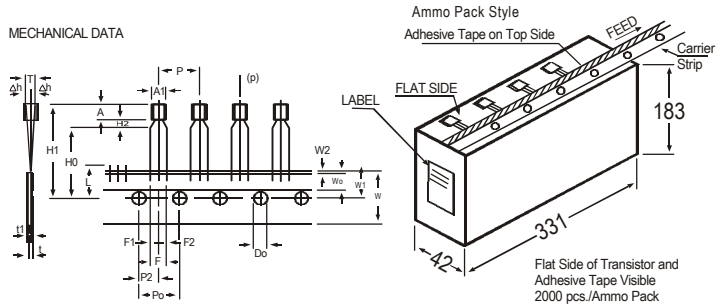


**PIN CONFIGURATION**

1. BASE
2. COLLECTOR
3. EMITTER

DIM	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	5 DEG	
G	1.14	1.40
H	1.14	1.53
K	12.70	—
L	1.982	2.082

All dimensions in mm.



All dimensions in mm unless specified otherwise

ITEM	SYMBOL	SPECIFICATION				REMARKS
		MIN.	NOM.	MAX.	TOL.	
BODY WIDTH	A1	4.0		4.8		
BODY HEIGHT	A	4.8		5.2		
BODY THICKNESS	T	3.9		4.2		
PITCH OF COMPONENT	P		12.7		±1	
FEED HOLE PITCH	Po		12.7		±0.3	
FEED HOLE CENTRE TO COMPONENT CENTRE	P2		6.35		±0.4	TO BE MEASURED AT BOTTOM OF CLINCH
DISTANCE BETWEEN OUTER LEADS	F		5.08		+0.6	
COMPONENT ALIGNMENT	Δh		0	1	-0.2	AT TOP OF BODY
TAPE WIDTH	W		18		±0.5	
HOLD-DOWN TAPE WIDTH	Wo		6		±0.2	
HOLE POSITION	W1		9		+0.7 -0.5	
HOLD-DOWN TAPE POSITION	W2		0.5		±0.2	
LEAD WIRE CLINCH HEIGHT	Ho		16		±0.5	
COMPONENT HEIGHT	H1			23.25		
LENGTH OF SNIPPED LEADS	L			11.0		
FEED HOLE DIAMETER	Do		4		±0.2	
TOTAL TAPE THICKNESS	t			1.2		±1 0.3 - 0.6
LEAD - TO - LEAD DISTANCE F1,	F2		2.54		+0.4 -0.1	
CLINCH HEIGHT	H2			3		
PULL - OUT FORCE	(P)	6N				

**NOTES**

1. MAXIMUM ALIGNMENT DEVIATION BETWEEN LEADS NOT TO BE GREATER THAN 0.2 mm.
2. MAXIMUM NON-CUMULATIVE VARIATION BETWEEN TAPE FEED HOLES SHALL NOT EXCEED 1 mm IN 20 PITCHES.
3. HOLDDOWN TAPE NOT TO EXCEED BEYOND THE EDGE(S) OF CARRIER TAPE AND THERE SHALL BE NO EXPOSURE OF ADHESIVE.
4. NO MORE THAN 3 CONSECUTIVE MISSING COMPONENTS ARE PERMITTED.
5. A TAPE TRAILER, HAVING AT LEAST THREE FEED HOLES ARE REQUIRED AFTER THE LAST COMPONENT.
6. SPLICES SHALL NOT INTERFERE WITH THE SPROCKET FEED HOLES.

**Packing Detail**

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-92 Bulk	1K/polybag	200 gm/1K pcs	3" x 7.5" x 7.5"	5K	17" x 15" x 13.5"	80K	23 kgs
TO-92 T&A	2K/ammo box	645 gm/2K pcs	12.5" x 8" x 1.8"	2K	17" x 15" x 13.5"	32K	12.5 kgs

### Disclaimer

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CDIL is a registered Trademark of  
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.  
Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290  
e-mail sales@cdil.com www.cdil.com