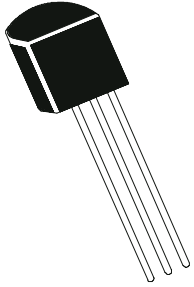


NPN COMPLEMENTARY SILICON TRANSISTOR

**CIL2383
(BPL)
TO-92
BCE**



Vertical Deflection Output & Class B Sound Output Applications of Colour T.V

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

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Base Voltage	VCBO	180	V
Collector -Emitter Voltage	VCEO	180	V
Emitter Base Voltage	VEBO	6.0	V
Collector Current	IC	1.0	A
Peak	ICP	1.5	A
Base Current	IB	500	mA
Power Dissipation	PD	900	mW
Operating And Storage Junction Temperature Range	Tj, Tstg	-55 to +150	deg C

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Voltage	VCEO	IC=10mA, IB=0	180	-	-	V
Collector Cut off Current	ICBO	VCB=150V, IE=0	-	-	1.0	uA
Emitter Cut off Current	IEBO	VEB=6V, IC=0	-	-	1.0	uA
DC Current Gain	hFE*	IC=200mA, VCE=5V	60	-	320	
Collector Emitter Saturation Voltage	VCE(Sat) *	IC=500mA, IB=50mA	-	-	1.5	V
Base Emitter on Voltage	VBE(on)*	IC=5mA, VCE=5V	0.45	-	0.75	V

Dynamic Characteristics

Output Capacitance	Cob	VCB=10V, IE=0, f=1MHz	-	-	20	pF
Gain Bandwidth Product	ft	VCE=5V, IC=200mA,	20	100	-	MHz

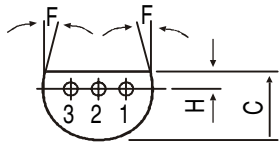
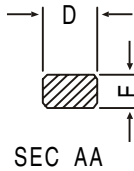
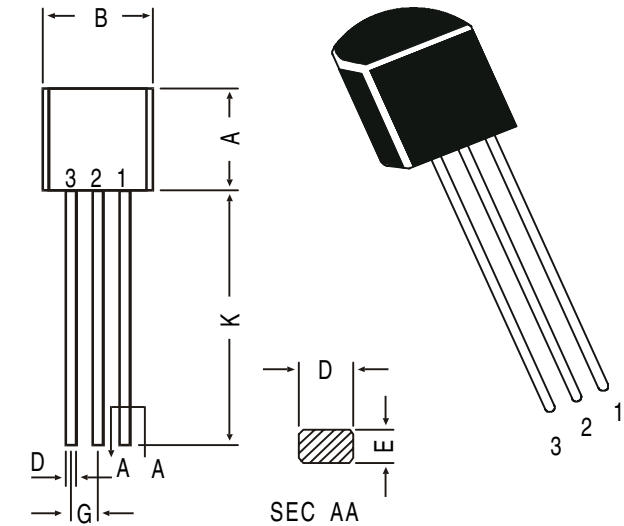
CLASSIFICATION

	R	O	Y
hFE *	60-120	100-200	160-320

*Pulse Test : Pulse Width =300us, Duty Cycle=2%

TO-92 Plastic Package

TO-92 Transistors on Tape and Ammo Pack



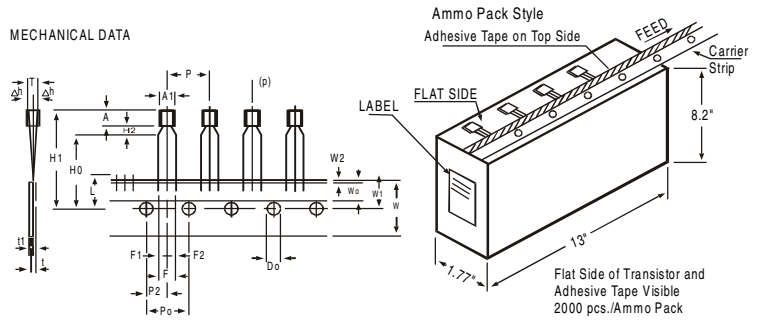
PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER

All dimensions in mm.

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	—

MECHANICAL DATA



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	P ₀		12.7		±0.3	CUMULATIVE PITCH ERROR 1.0 mm/20 PITCH
FEED HOLE CENTRE TO COMPONENT CENTRE	P ₂		6.35		±0.4	TO BE MEASURED AT BOTTOM OF CLINCH
DISTANCE BETWEEN OUTER LEADS	F		5.08		+0.6 -0.2	
COMPONENT ALIGNMENT	Δh		0	1		AT TOP OF BODY
TAPE WIDTH	W		18		±0.5	
HOLD-DOWN TAPE WIDTH	W ₀		6		±0.2	
HOLE POSITION	W ₁		9		+0.7 -0.5	
HOLD-DOWN TAPE POSITION	W ₂		0.5		±0.2	
LEAD WIRE CLINCH HEIGHT	H ₀		16		±0.5	
COMPONENT HEIGHT	H ₁		23.25			
LENGTH OF SNIPPED LEADS	L		11.0			
FEED HOLE DIAMETER	D ₀		4		±0.2	
TOTAL TAPE THICKNESS	t		1.2			t1 0.3 - 0.6
LEAD - TO - LEAD DISTANCE F ₁ ,	F ₂		2.54		+0.4 -0.1	
CLINCH HEIGHT	H ₂		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"	5.0K	17" x 15" x 13.5"	80.0K	23 kgs
TO-92 T&A	2K/ammo box	645 gm/2K pcs	12.5" x 8" x 1.8"	2.0K	17" x 15" x 13.5"	32.0K	12.5 kgs

Notes

Disclaimer

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