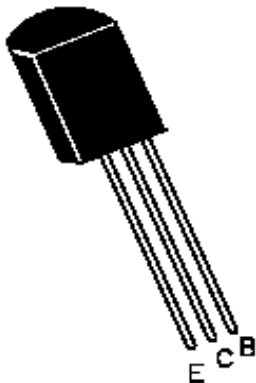


NPN EPITAXIAL PLANAR SILICON TRANSISTOR

CD1207

**TO-92L
Plastic Package**



High Current Switching Applications

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V _{CBO}	60	V
Collector Emitter Voltage	V _{CEO}	50	V
Emitter Base Voltage	V _{EBO}	6	V
Collector Current	I _C	2	A
Peak Collector Current	I _{CP}	4	A
Collector Power Dissipation	P _C	1	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	- 55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Base Voltage	V _{CBO}	I _C =10μA, I _E =0	60			V
Collector Emitter Voltage	V _{CEO}	I _C =1mA, I _B =0	50			V
Emitter Base Voltage	V _{EBO}	I _E =10μA, I _C =0	6			V
Collector Cut Off Current	I _{CBO}	V _{CB} =50V, I _E =0			100	nA
Emitter Cut Off Current	I _{EBO}	V _{EB} =4V, I _C = 0			100	nA
DC Current Gain	*h _{FE}	I _C =100mA, V _{CE} =2V	100		560	
	h _{FE}	I _C =1.5A, V _{CE} =2V	40			
Collector Emitter Saturation Voltage	V _{CE (sat)}	I _C =1A, I _B =50mA			0.4	V
Base Emitter Saturation Voltage	V _{BE (sat)}	I _C =1A, I _B =50mA			1.2	V

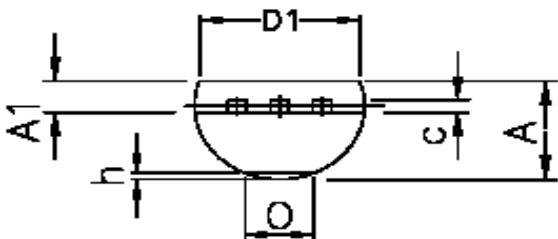
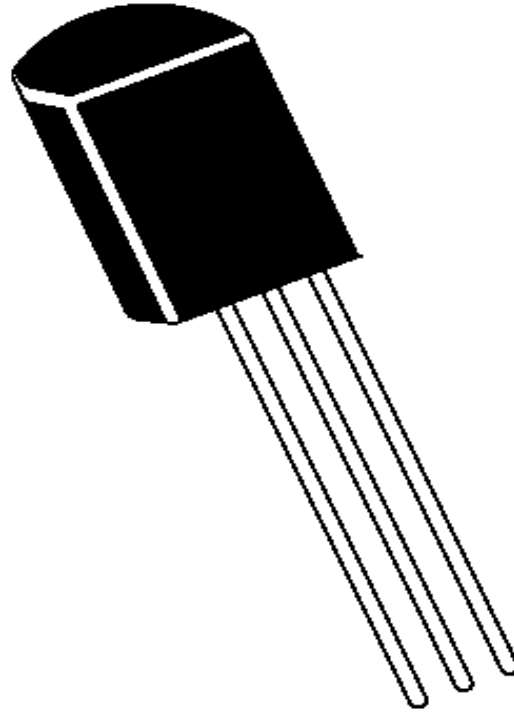
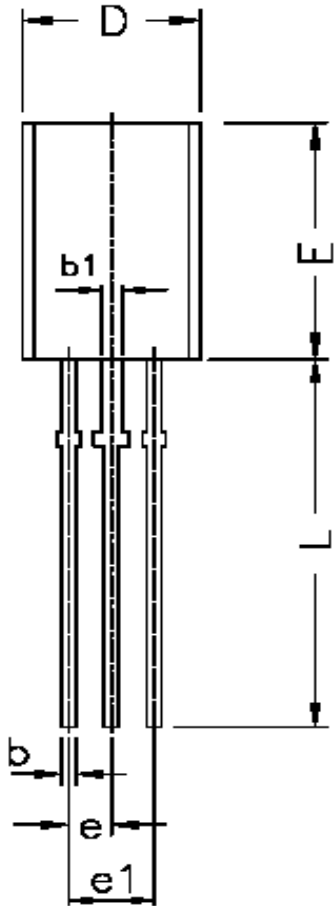
DYNAMIC CHARACTERISTICS

Transition Frequency	f _T	V _{CE} =10V, I _C =50mA		150		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		12		pF

CLASSIFICATION	R	S	T	U
*h _{FE}	100 - 200	140 - 280	200 - 400	280 - 560

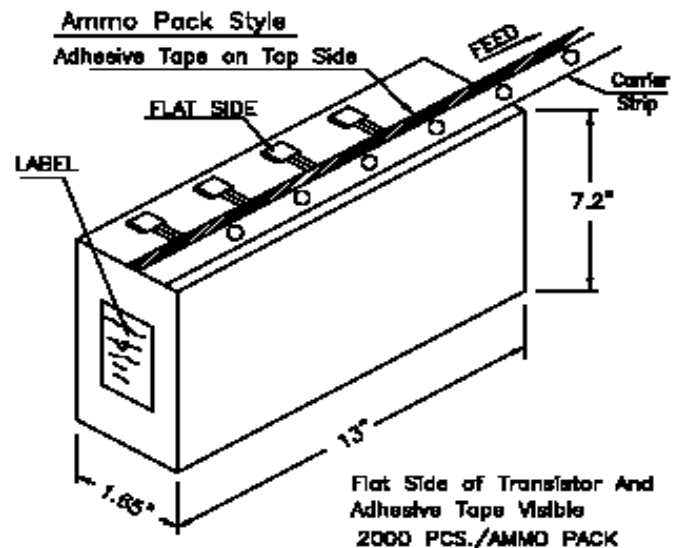
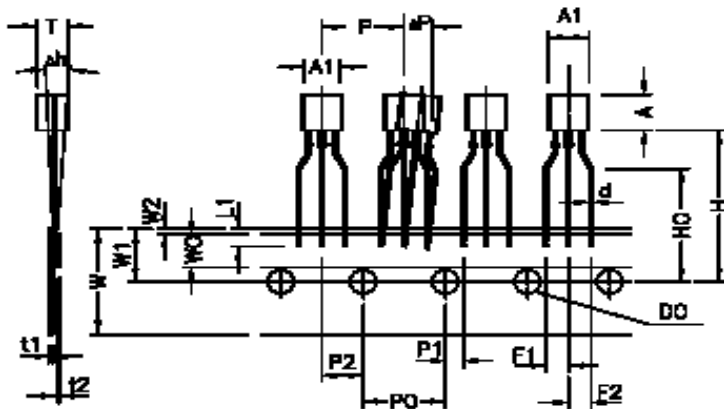
CD1207Rev140205E

PACKAGE TO-92L



DIM	MIN	MAX
A	3.700	4.100
A1	1.280	1.580
b	0.350	0.550
b1	0.600	0.800
c	0.350	0.450
D	4.700	5.100
D1	4.000	—
E	7.800	8.200
e	1.270 TYP.	
e1	2.440	2.640
L	13.600	14.200
O	—	1.600
h	0.000	0.300

TO-92L TRANSISTOR ON TAPE AND AMMO PACK



ITEM	SYMBOL	VALUE & TOLERANCE
BODY WIDTH	A1	4.9 ±0.2
BODY HEIGHT	A	8.0 ±0.2
BODY THICKNESS	T	3.9 ±0.2
LEAD WIRE DIAMETER	d	0.45 ±0.05
PITCH OF COMPONENT	F	12.7 ±0.3
FEED HOLE PITCH	P0	12.7 ±0.2
HOLE CENTER TO COMPONENT CENTER	P2	6.35 ±0.3
LEAD TO LEAD DISTANCE	F1, F2	2.5 ±0.3
COMPONENT ALIGNMENT, F-R	Δh	0 ±1.0
TYPE WIDTH	W	18.0 +1.0, -0.5
HOLE DOWN TAPE WIDTH	W0	6.0 ±0.5
HOLE POSITION	W1	9.0 ±0.5
HOLE DOWN TAPE POSITION	W2	1.0 MAX.
HEIGHT OF COMPONENT FROM TAPE CENTER	H	19.0 +2.0, -0
LEAD WIRE CLINCH HEIGHT	H0	16.0 ±0.5
LEAD WIRE (TAPE PORTION)	L1	2.5 MIN
FEED HOLE DIAMETER	DO	4.0 ±0.2
TAPED LEAD THICKNESS	t1	0.4 ±0.05
CARRIER TAPE THICKNESS	t2	0.2 ±0.05
POSITION OF HOLE	P1	3.85 ±0.3
COMPONENT ALIGNMENT	ΔP	0 ±1.0

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 IS PERMITTED.
5. A TAPE TRAILER, HAVING AT LEAST THREE FEED HOLES IS REQUIRED AFTER THE LAST COMPONENT.
6. SPIKES SHALL NOT INTERFERE WITH THE SPROCKET FEED HOLES.

Disclaimer

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