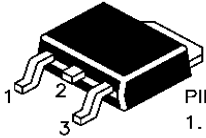


**NPN SILICON PLANAR TRANSISTOR**

**CJD86**

**DPAK (TO-252)  
Plastic Package**



**PIN CONFIGURATION**  
1. BASE  
2. COLLECTOR  
3. EMITTER

**For High Speed Switching Application**

**ABSOLUTE MAXIMUM RATINGS (T<sub>c</sub>=25°C )**

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V <sub>CBO</sub>	60	V
Collector Emitter Voltage	V <sub>CEO</sub>	50	V
Emitter Base Voltage	V <sub>EBO</sub>	6.0	V
Collector Current	I <sub>C</sub>	3.0	A
Peak Collector Current	I <sub>CP</sub>	6.0	A
Power Dissipation	P <sub>D</sub>	0.5	W
Mounted on Ceramic Board (250mm <sup>2</sup> X 8.0 mm)		1.5	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to +150	°C

\*These ratings are applicable when surface mounted on the minimum pad sizes recommended. (see page no 3)

**ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Emitter Voltage	V <sub>CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	50			V
Collector Base Voltage	V <sub>CBO</sub>	I <sub>C</sub> =10μA, V <sub>CE</sub> =2V	60			V
Emitter Base Voltage	V <sub>EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	6.0			V
Collector Cut Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =40V, I <sub>E</sub> =0			1.0	μA
Emitter Cut Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> = 0			1.0	μA
DC Current Gain	*h <sub>FE</sub>	**I <sub>C</sub> =100mA, V <sub>CE</sub> =2V I <sub>C</sub> =3A, V <sub>CE</sub> =2V	100 35		560	

**DYNAMIC CHARACTERISTICS**

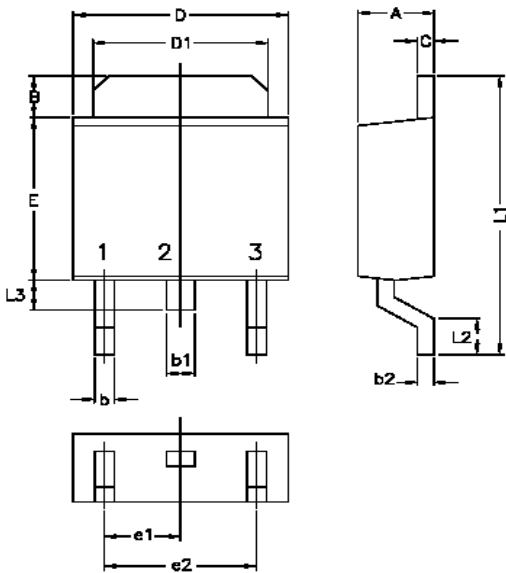
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA		150		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		25		pF

<b>**h<sub>FE</sub> Classifications</b>	<b>R : 100 - 200, S : 140 - 280, T : 200 - 400, U : 280 - 560</b>
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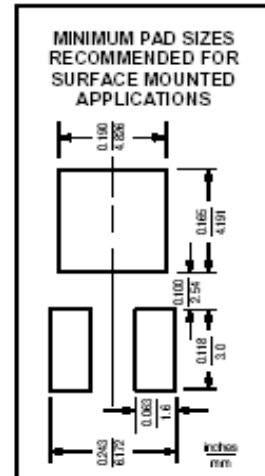
MARKING	CDIL	CDIL	CDIL	CDIL	CDIL
	MJD86R	MJD86S	MJD86T	MJD86U	MJD86
	XY MX	XY MX	XY MX	XY MX	XY MX
XY= Date Code					

**\*\*Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%**

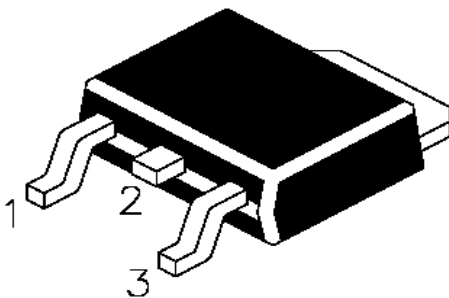
DPAK PACKAGE OUTLINE DIMENSIONS



DIM	MIN.	MAX.
A	2.20	2.40
B	1.30	1.50
b	0.55	0.65
b1	0.75	0.85
b2	0.46	0.56
C	0.46	0.56
D	6.40	6.60
D1	5.20	5.40
E	5.40	5.60
e1	2.25	2.35
e2	4.50	4.70
L1	9.25	9.75
L2	0.5	-
L3	0.90	1.10



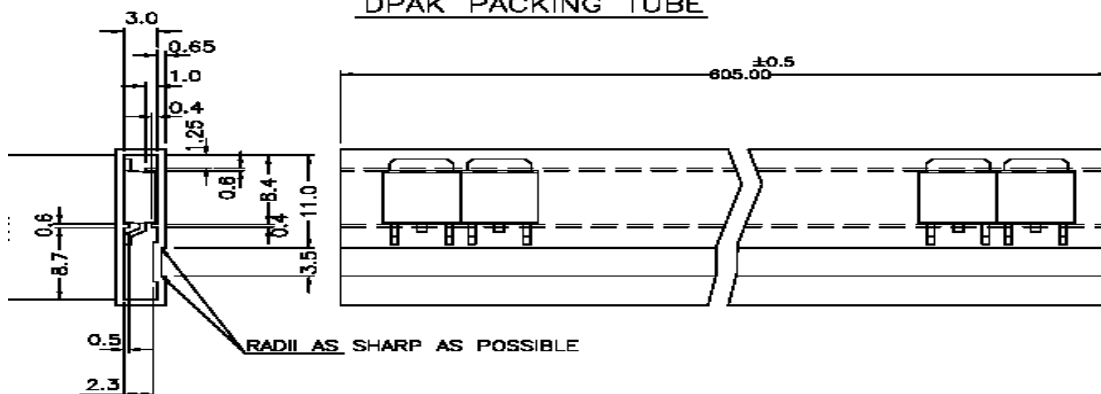
ALL DIMENSIONS ARE IN mm



PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER

DPAK PACKING TUBE



NOTE:- 80 Pcs/TUBE  
ALL DIMENSIONS ARE IN mm



### **Disclaimer**

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