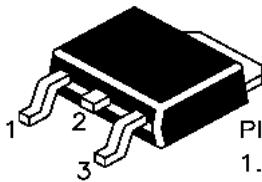


**NPN SILICON POWER TRANSISTOR**
**CJD81**


**PIN CONFIGURATION**

1. BASE
2. COLLECTOR
3. Emitter

**DPAK (TO-252)  
Plastic Package**
**For High Current Driver Applications**
**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V <sub>CBO</sub>	30	V
Collector Emitter Voltage	V <sub>CEO</sub>	10	V
Emitter Base Voltage	V <sub>EBO</sub>	6.0	V
Collector Current	I <sub>C</sub>	3.0	A
Collector Current (Pulse)	I <sub>CP</sub>	5.0	A
Collector Power Dissipation	P <sub>D</sub>	0.9	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	- 55 to +150	°C

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

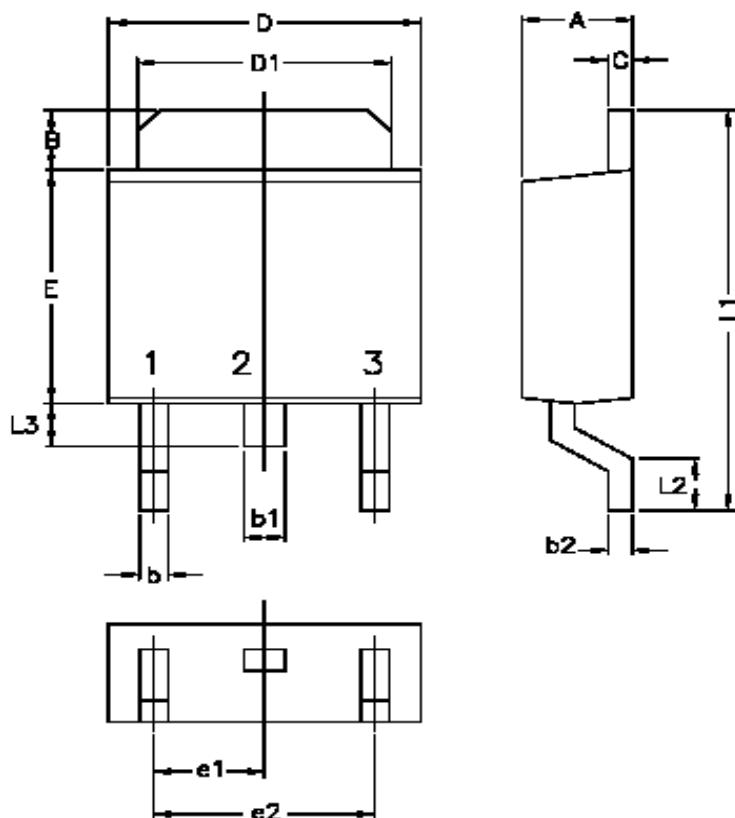
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Emitter Voltage	V <sub>CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	10			V
Collector Base Voltage	V <sub>CBO</sub>	I <sub>C</sub> =10µA, I <sub>E</sub> =0	30			V
Emitter Base Voltage	V <sub>EBO</sub>	I <sub>E</sub> =10µA, I <sub>C</sub> =0	6.0			V
Collector Cut Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0			0.1	µA
Emitter Cut Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0			0.1	µA
DC Current Gain	h <sub>FE</sub>	I <sub>C</sub> =3A, V <sub>CE</sub> =2V	140			

**DYNAMIC CHARACTERISTICS**

Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA		200		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	30			pF

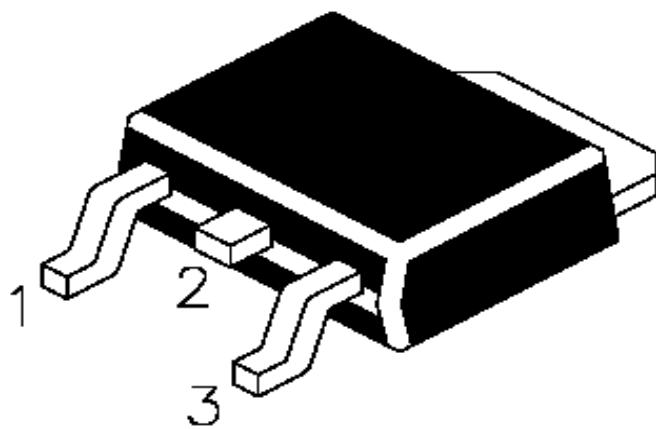
MARKING	CDIL CJD81 MX XY
XY= Date Code	

CJD81Rev230205E

DPAK PACKAGE OUTLINE DIMENSIONS

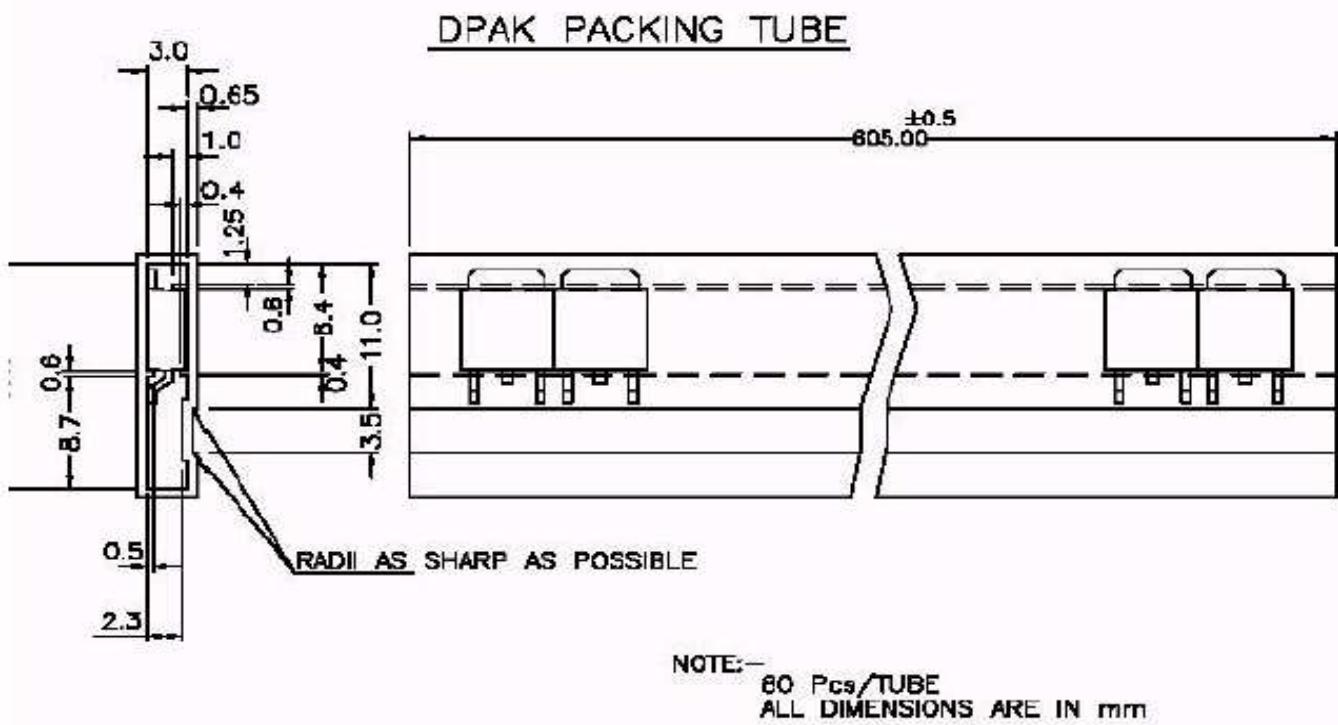
DIM	MIN.	MAX.
A	2.20	2.40
B	1.30	1.50
b	0.55	0.65
b1	0.75	0.85
b2	0.46	0.56
C	0.46	0.56
D	6.40	6.60
D1	5.20	5.40
E	5.40	5.60
e1	2.25	2.35
e2	4.50	4.70
L1	9.25	9.75
L2	0.5	—
L3	0.90	1.10

ALL DIMENSIONS ARE IN mm

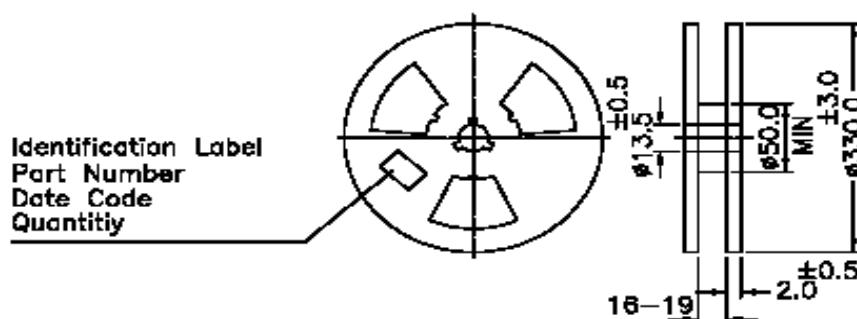


## PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER



## DPAK TAPE &amp; REEL SPECIFICATION



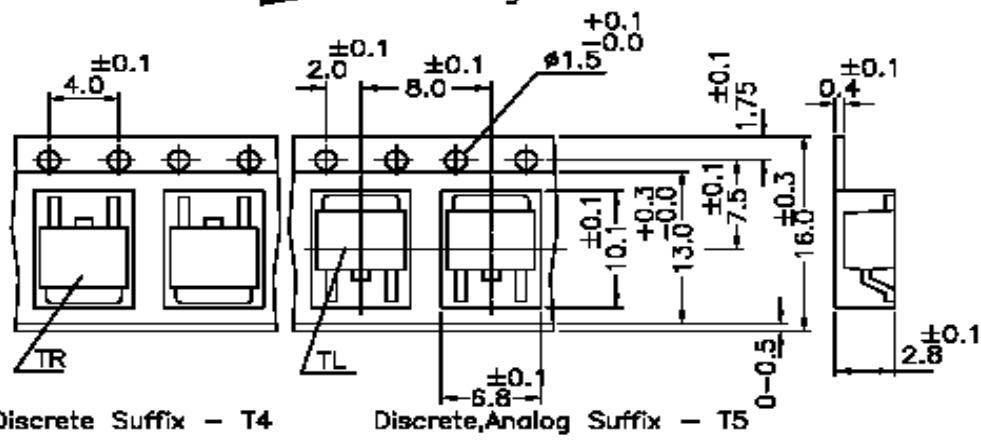
ALL DIMENSIONS ARE IN mm

REEL Ø 330 mm (13")

No of Device 2500

TAPE & REEL

→ De- reeling direction



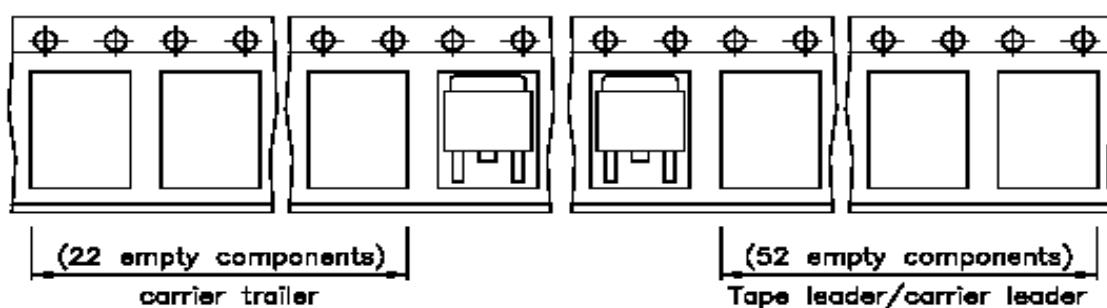
Discrete Suffix - T4

Analog Suffix - RK

## Notes:-

A maximum of three consecutive components may be missing. Provided this gap is followed by six consecutive components.

→ De- reeling direction



(22 empty components)

carrier trailer

(52 empty components)

Tape leader/carrier leader

### **Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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