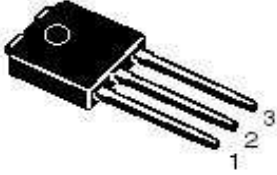


PNP SILICON POWER TRANSISTOR

CJD204R



Pin Configurations:-

- Pin 1 :- Emitter
- Pin 2 :- Collector
- Pin 3 :- Base

TO-251

I PAK Plastic Package

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	60	V
Collector Emitter Voltage	V_{CEO}	60	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	8	A
Collector Current (Peak Value $t_p=10ms$)	I_{CM}	12	A
Collector Current (Non Repetitive Peak Value $t_p=2ms$)	I_{CSM}	25	A
Base Current	I_B	3	A
Total Device Dissipation at $T_{mb}=25\text{ }^\circ\text{C}$	P_{tot}	60	W
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Junction to Mounting Base	$P_{th(j-mb)}$	2.08	K/W
Junction to Ambient in free air	$P_{th(j-a)}$	70	K/W

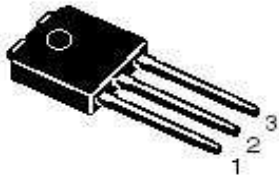
ELECTRICAL CHARACTERISTICS ($T_a=25\text{ }^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Cut Off Current	I_{CEO}	$V_{CE}=30V, I_B = 0$		0.2	mA
Collector Cut Off Current	I_{CBO}	$V_{CB}=40V, I_E = 0, T_j=150\text{ }^\circ\text{C}$		1.0	mA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=5V, I_C = 0$		0.5	mA
Collector Emitter Voltage	V_{CEO}	$I_C=0.2A, I_B=0$	60		V
Base Emitter On Voltage	$*V_{BE(on)}$	$I_C=3A, V_{CE}=2V$		1.5	V
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=3A, I_B=0.3A$		1.0	V
		$I_C=6A, I_B=0.6A$		1.5	V
Base Emitter Saturation Voltage	$*V_{BE(sat)}$	$I_C=6A, I_B=0.6A$		2.0	V
DC Current Gain	$*h_{FE}$	$I_C=2A, V_{CE}=2V$	30		
Cut Off Frequency	f_{hfe}	$I_C=0.3A, V_{CE}=3V$	25		KHZ
Transition Frequency	f_T	$I_C=0.3A, V_{CE}=3V, f=1\text{MHZ}$	7.0		MHZ
Forward Bias Second Breakdown Collector Current	I_{SB}	$V_{CE}=40V, t_p=0.1s$	1.5		A

*Pulse test : Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$

PNP SILICON POWER TRANSISTOR

CJD204R



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TO-251

I PAK Plastic Package

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise)

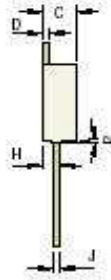
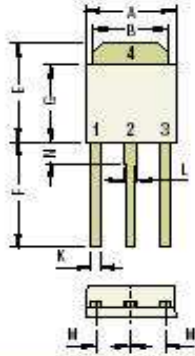
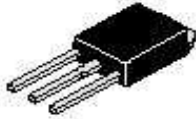
Switching Times

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Turn on time	t_{on}	$-I_{Con}=2A, -I_{Bon} = I_{Boff} = 0.2A$		1.0	μs
Turn off time	t_{off}			2.0	μs

CJD204R Rev300410E

**CJD204R
TO-251
I PAK Plastic Package**

**TO-251
(I PAK)
Leaded Plastic
Package**



DIM	Nominal
A	6.00
B	5.00
C	2.30
D	0.50
E	7.00
F	7.50
G	5.50

DIM	Nominal
H	1.20
J	0.50
K	0.60
L	0.85
M	2.30
N	1.90
P	2° - 5°

Pin Configurations

Triacs
Pin 1: Emitter
Pin 2: Collector
Pin 3: Base

... Packaging Specifications

Package / Case Type	Packaging Type	Std. Packing Qty	Inner Carton			Outer Carton		
			Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
TO-251 (I PAK)	Tube	80 pcs/tube	4K			20K		

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's 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 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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