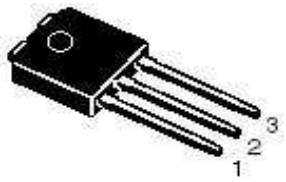
PNP SILICON POWER TRANSISTOR

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 tp=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 ºC	P_{tot}	60	W
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +150	ºC

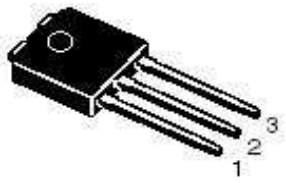
THERMAL CHARACTERISTICS

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

ELECTRICAL CHARACTERISTICS (T_a=25 ºC 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 ºC		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=1MHZ	7.0		MHz
Forward Bias Second Breakdown Collector Current	I_{SB}	V_{CE}=40V, tp=0.1s	1.5		A

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



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

TO-251
I PAK Plastic Package

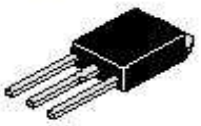
ELECTRICAL CHARACTERISTICS (T_a=25ºC unless specified otherwise)

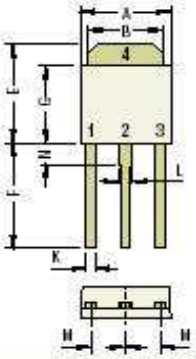
Switching Times

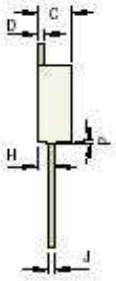
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Turn on time	t_{on}	$-I_{Con}$=2A, $-I_B$on = $I_B$off = 0.2A		1.0	µs
Turn off time	t_{off}			2.0	µs

CJD204R Rev300410E

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	1.80
P	2° - 5°

Pin Configurations

Triacs

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

... Packaging Specifications

Package / Case Type	Packaging Type	Std. Packing	Inner Carton			Outer Carton		
		Qty	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).

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