



**THE DATASHEET OF
CJD200 TR13**



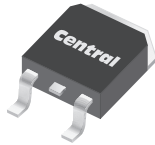
CJD200 NPN
CJD210 PNP

**SURFACE MOUNT SILICON
COMPLEMENTARY
POWER TRANSISTORS**



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DPAK
POWER!



DPAK CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CJD200 and CJD210 are complementary silicon power transistors manufactured in a surface mount package designed for high current amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	8.0	V
Continuous Collector Current	I_C	5.0	A
Peak Collector Current	I_{CM}	10	A
Continuous Base Current	I_B	1.0	A
Power Dissipation	P_D	12.5	W
Power Dissipation ($T_A=25^\circ\text{C}$)	P_D	1.4	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	θ_{JC}	10	$^\circ\text{C/W}$
Thermal Resistance	θ_{JA}	89.3	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=40\text{V}$		100	nA
I_{CBO}	$V_{CB}=40\text{V}, T_C=125^\circ\text{C}$		100	μA
I_{EBO}	$V_{EB}=8.0\text{V}$		100	nA
BV_{CEO}	$I_C=10\text{mA}$	25		V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		0.3	V
$V_{CE(SAT)}$	$I_C=2.0\text{A}, I_B=200\text{mA}$		0.75	V
$V_{CE(SAT)}$	$I_C=5.0\text{A}, I_B=1.0\text{A}$		1.8	V
$V_{BE(SAT)}$	$I_C=5.0\text{A}, I_B=1.0\text{A}$		2.5	V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}, I_C=2.0\text{A}$		1.6	V
h_{FE}	$V_{CE}=1.0\text{V}, I_C=500\text{mA}$	70		
h_{FE}	$V_{CE}=1.0\text{V}, I_C=2.0\text{A}$	45	180	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=5.0\text{A}$	10		
f_T	$V_{CE}=10\text{V}, I_C=100\text{mA}, f=10\text{MHz}$	65		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (CJD200)		80	pF
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (CJD210)		120	pF

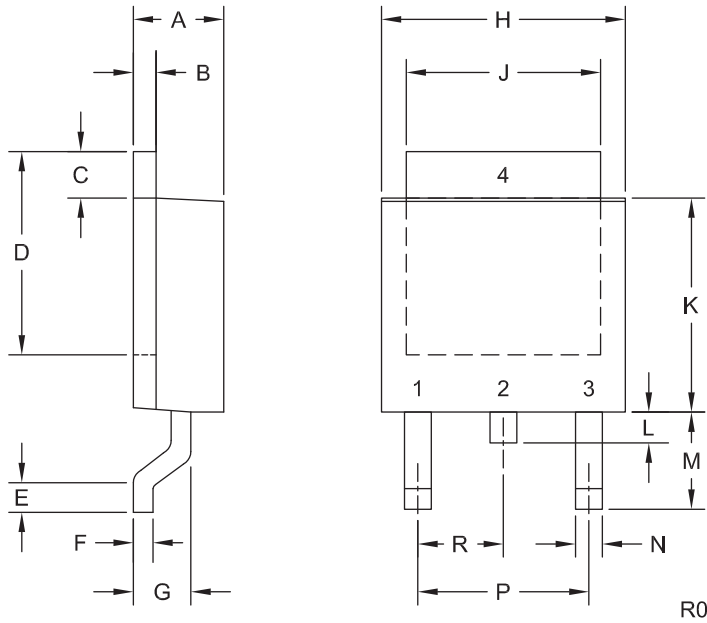
R3 (21-January 2013)

CJD200 NPN
CJD210 PNP

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DPAK CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Collector
- 3) Emitter
- 4) Collector

MARKING:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.083	0.108	2.10	2.75
B	0.016	0.032	0.40	0.81
C	0.035	0.063	0.89	1.60
D	0.203	0.228	5.15	5.79
E	0.020	-	0.51	-
F	0.018	0.024	0.45	0.60
G	0.051	0.071	1.30	1.80
H	0.248	0.268	6.30	6.81
J	0.197	0.217	5.00	5.50
K	0.209	0.245	5.30	6.22
L	0.025	0.040	0.64	1.02
M	0.090	0.115	2.30	2.91
N	0.012	0.045	0.30	1.14
P	0.180		4.60	
R	0.090		2.30	

DPAK (REV: R0)

R3 (21-January 2013)

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PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
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REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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