

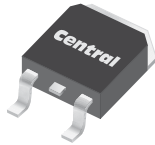
CJD200 NPN  
CJD210 PNP

**SURFACE MOUNT  
COMPLEMENTARY SILICON  
POWER TRANSISTORS**



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**DPAK  
POWER!**



**DPAK TRANSISTOR CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CJD200, CJD210 types 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	$V_{CB0}$	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	$\theta_{JC}$	10	$^\circ\text{C/W}$
Thermal Resistance	$\theta_{JA}$	89.3	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CB0}$	$V_{CB}=40\text{V}$		100	nA
$I_{CB0}$	$V_{CB}=40\text{V}, T_C=125^\circ\text{C}$		100	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=8.0\text{V}$		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

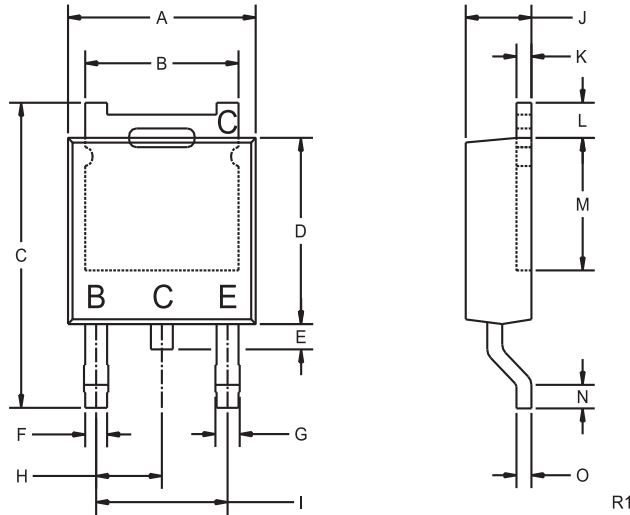
R2 (4-January 2010)

CJD200 NPN  
CJD210 PNP



**SURFACE MOUNT  
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**DPAK TRANSISTOR CASE - MECHANICAL OUTLINE**



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.250	0.265	6.35	6.73
B	0.205	0.215	5.21	5.46
C	0.374	0.409	9.50	10.40
D	0.235	0.245	5.97	6.22
E	0.025	0.040	0.64	1.02
F	0.025	0.035	0.64	0.88
G	0.030	0.045	0.76	1.14
H	0.090		2.28	
I	0.180		4.57	
J	0.086	0.094	2.19	2.38
K	0.018	0.023	0.46	0.58
L	0.040	0.050	1.02	1.27
M	0.170	-	4.32	-
N	0.020	-	0.51	-
O	0.018	0.023	0.46	0.58

**LEAD CODE:**  
B) BASE  
C) COLLECTOR  
E) EMITTER  
C) COLLECTOR

**MARKING:**  
**FULL PART NUMBER**

DPAK TRANSISTOR (REV: R1)

R2 (4-January 2010)