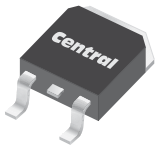
CJD112 NPN
CJD117 PNP

SURFACE MOUNT
COMPLEMENTARY SILICON
POWER DARLINGTON TRANSISTORS



DPAK TRANSISTOR CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CJD112, CJD117 types are Complementary Silicon Power Darlington Transistors manufactured in a surface mount package designed for low speed switching and amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C unless otherwise noted)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	2.0	A
Peak Collector Current	I_{CM}	4.0	A
Continuous Base Current	I_B	50	mA
Power Dissipation	P_D	20	W
Power Dissipation (T_A=25°C)	P_D	1.75	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JC}	6.25	°C/W
Thermal Resistance	Θ_{JA}	71.4	°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CEO}	V_{CE}=50V		20	μA
I_{CEV}	V_{CE}=80V, $V_{BE(off)}$=1.5V		10	μA
I_{CEV}	V_{CE}=80V, $V_{BE(off)}$=1.5V, T_C=125°C		500	μA
I_{CBO}	V_{CB}=80V		10	μA
I_{CBO}	V_{CB}=100V		20	μA
I_{EBO}	V_{EB}=5.0V		2.0	mA
BV_{CEO}	I_C=30mA		100	V
$V_{CE(SAT)}$	I_C=2.0A, I_B=8.0mA		2.0	V
$V_{CE(SAT)}$	I_C=4.0A, I_B=40mA		3.0	V
$V_{BE(SAT)}$	I_C=4.0A, I_B=40mA		4.0	V
$V_{BE(ON)}$	V_{CE}=3.0V, I_C=2.0A		2.8	V
h_{FE}	V_{CE}=3.0V, I_C=0.5A	500		
h_{FE}	V_{CE}=3.0V, I_C=2.0A	1000	12000	
h_{FE}	V_{CE}=3.0V, I_C=4.0A	200		
f_T	V_{CE}=10V, I_C=750mA, f=1.0MHz	25		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=0.1MHz (CJD112)		100	pF
C_{ob}	V_{CB}=10V, I_E=0, f=0.1MHz (CJD117)		200	pF

R2 (4-January 2010)

CJD112 NPN
CJD117 PNP

SURFACE MOUNT
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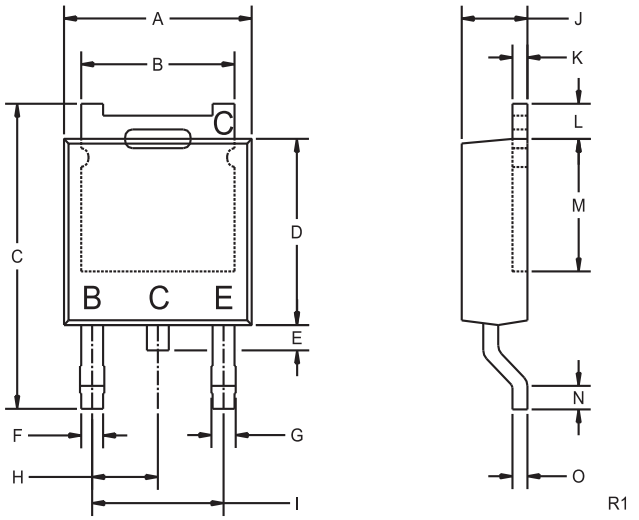
DPAK TRANSISTOR CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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

DPAK TRANSISTOR (REV: R1)

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

MARKING:
FULL PART NUMBER

R2 (4-January 2010)