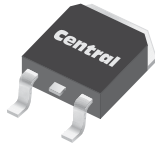


CJD47
CJD50

**SURFACE MOUNT
NPN SILICON
POWER TRANSISTOR**

**DKPAK
POWER!**



DPAK TRANSISTOR CASE

Central
Semiconductor Corp.

www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CJD47, CJD50 types are NPN Silicon Power Transistors manufactured in a surface mount package designed for high voltage applications such as power supplies and other switching applications.

MARKING: FULL PART NUMBER

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

	SYMBOL	CJD47	CJD50	UNITS
Collector-Base Voltage	V_{CBO}	350	500	V
Collector-Emitter Voltage	V_{CEO}	250	400	V
Emitter-Base Voltage	V_{EBO}		5.0	V
Continuous Collector Current	I_C		1.0	A
Peak Collector Current	I_{CM}		2.0	A
Continuous Base Current	I_B		600	mA
Power Dissipation	P_D		15	W
Power Dissipation ($T_A=25^\circ\text{C}$)	P_D		1.56	W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150	$^\circ\text{C}$
Thermal Resistance	θ_{JC}		8.33	$^\circ\text{C/W}$
Thermal Resistance	θ_{JA}		80.1	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEO}	$V_{CE}=150\text{V}$ (CJD47)		200	μA
I_{CEO}	$V_{CE}=300\text{V}$ (CJD50)		200	μA
I_{CES}	$V_{CE}=350\text{V}$ (CJD47)		100	μA
I_{CES}	$V_{CE}=500\text{V}$ (CJD50)		100	μA
I_{EBO}	$V_{EB}=5.0\text{V}$		1.0	mA
BV_{CEO}	$I_C=30\text{mA}$ (CJD47)	250		V
BV_{CEO}	$I_C=30\text{mA}$ (CJD50)	400		V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=200\text{mA}$		1.0	V
$V_{BE(ON)}$	$V_{CE}=10\text{V}, I_C=1.0\text{A}$		1.5	V
h_{FE}	$V_{CE}=10\text{V}, I_C=300\text{mA}$	30	150	
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{A}$	10		
f_T	$V_{CE}=10\text{V}, I_C=200\text{mA}, f=2.0\text{MHz}$	10		MHz
h_{fe}	$V_{CE}=10\text{V}, I_C=200\text{mA}, f=1.0\text{kHz}$	25		

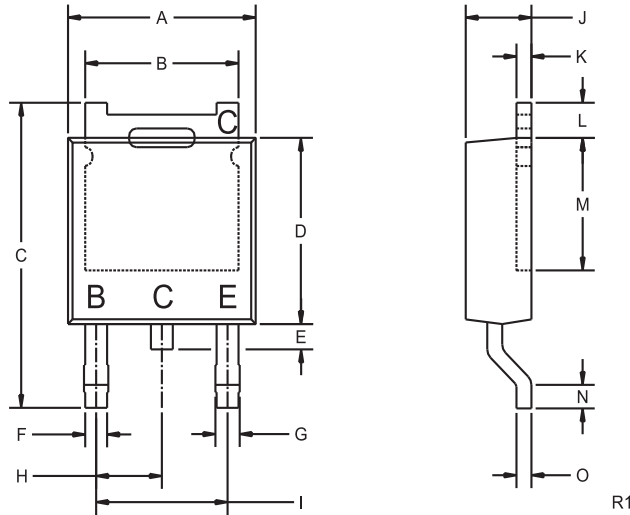
R2 (4-January 2010)

CJD47
CJD50

SURFACE MOUNT
NPN SILICON
POWER TRANSISTOR



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)