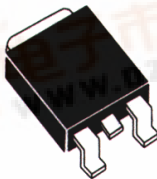




CJD112 NPN
CJD117 PNP

**COMPLEMENTARY SILICON
POWER DARLINGTON TRANSISTOR**





DPAK CASE

CentralTM

Semiconductor Corp.

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.

MAXIMUM RATINGS ($T_C=25^{\circ}\text{C}$)

	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
Base Current	I_B	50	mA
Power Dissipation ($T_C=25^{\circ}\text{C}$)	P_D	20	W
Power Dissipation ($T_A=25^{\circ}\text{C}$)	P_D	1.75	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	θ_{JC}	6.25	$^{\circ}\text{C/W}$
Thermal Resistance	θ_{JA}	71.4	$^{\circ}\text{C/W}$

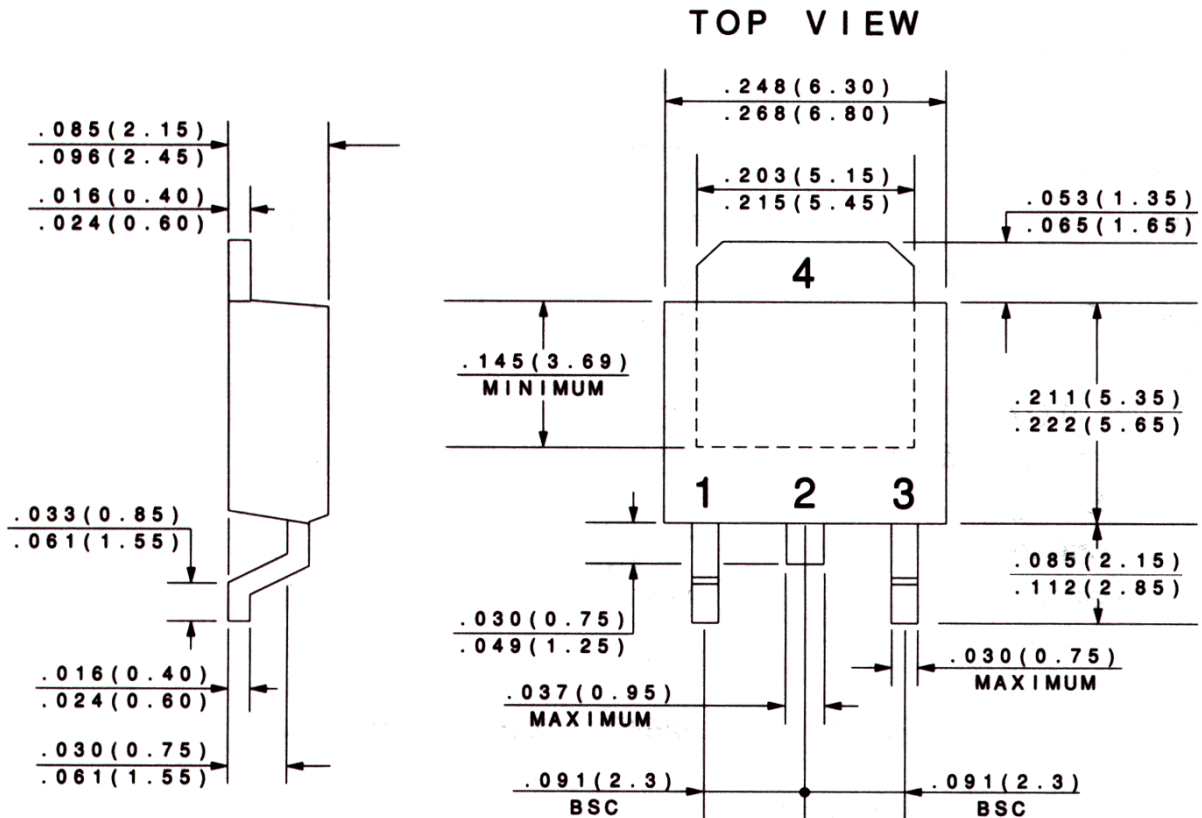
ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEO}	$V_{CE}=50\text{V}$		20	μA
I_{CEV}	$V_{CE}=80\text{V}, V_{BE}(\text{off})=1.5\text{V}$		10	μA
I_{CEV}	$V_{CE}=80\text{V}, V_{BE}(\text{off})=1.5\text{V}, T_C=125^{\circ}\text{C}$		500	μA
I_{CBO}	$V_{CB}=80\text{V}$		10	μA
I_{CBO}	$V_{CB}=100\text{V}$		20	μA
I_{EBO}	$V_{EB}=5.0\text{V}$		2.0	mA
BV_{CEO}	$I_C=30\text{mA}$		100	V
$V_{CE}(\text{SAT})$	$I_C=2.0\text{A}, I_B=8.0\text{mA}$		2.0	V
$V_{CE}(\text{SAT})$	$I_C=4.0\text{A}, I_B=40\text{mA}$		3.0	V
$V_{BE}(\text{SAT})$	$I_C=4.0\text{A}, I_B=40\text{mA}$		4.0	V



SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$V_{BE(ON)}$	$V_{CE}=3.0V, I_C=2.0A$		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

All dimensions in inches (mm).



LEAD CODE:

- 1) BASE
- 2) COLLECTOR
- 3) EMITTER
- 4) COLLECTOR