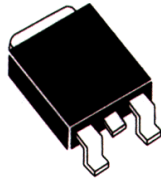




CJD112 NPN  
CJD117 PNP

COMPLEMENTARY SILICON  
POWER DARLINGTON TRANSISTOR

DPAK POWER!<sup>TM</sup>



DPAK CASE

**Central**<sup>TM</sup>  
**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** ( $T_C=25^\circ\text{C}$ )

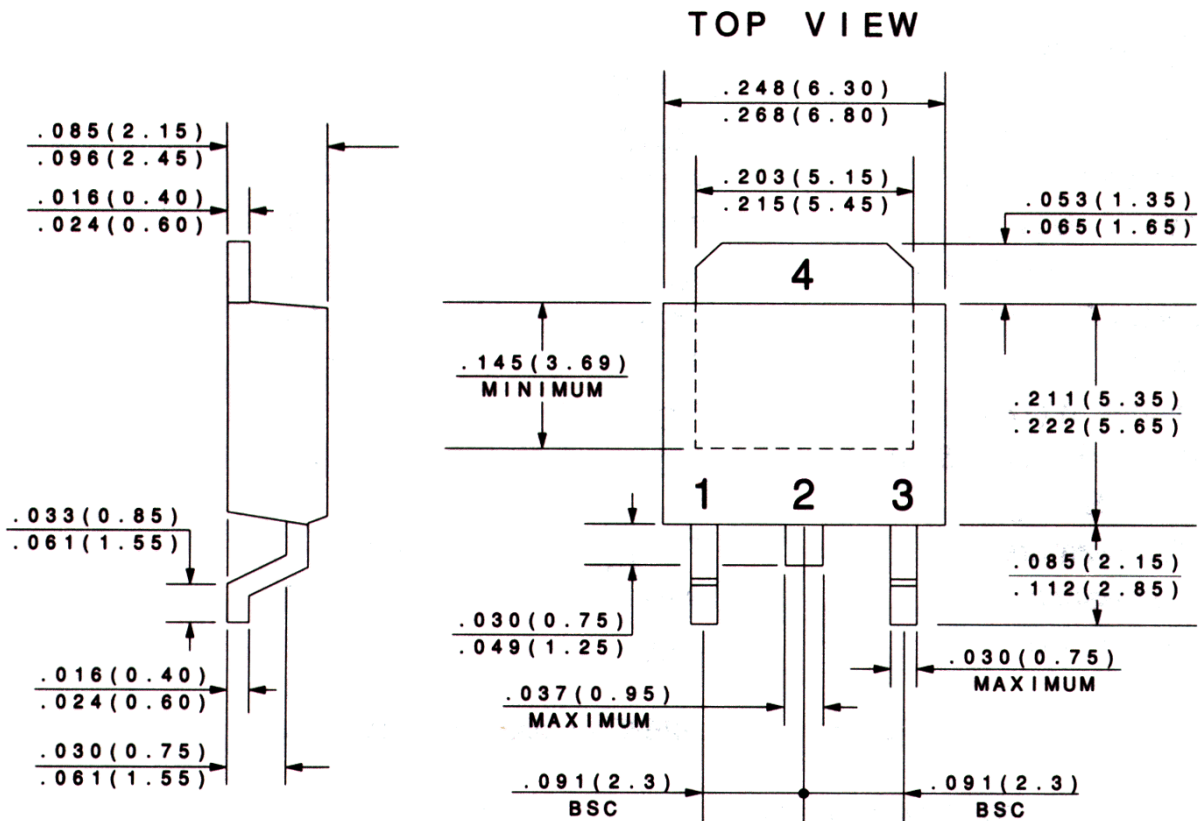
	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Continuous Collector Current	$I_C$	2.0	A
Peak Collector Current	$I_{CM}$	4.0	A
Base Current	$I_B$	50	mA
Power Dissipation ( $T_C=25^\circ\text{C}$ )	$P_D$	20	W
Power Dissipation ( $T_A=25^\circ\text{C}$ )	$P_D$	1.75	W
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$	6.25	$^\circ\text{C/W}$
Thermal Resistance	$\theta_{JA}$	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	$\mu\text{A}$
$I_{CEV}$	$V_{CE}=80\text{V}, V_{BE(\text{off})}=1.5\text{V}$		10	$\mu\text{A}$
$I_{CEV}$	$V_{CE}=80\text{V}, V_{BE(\text{off})}=1.5\text{V}, T_C=125^\circ\text{C}$		500	$\mu\text{A}$
$I_{CBO}$	$V_{CB}=80\text{V}$		10	$\mu\text{A}$
$I_{CBO}$	$V_{CB}=100\text{V}$		20	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$		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



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