



CJD44H11 NPN  
CJD45H11 PNP

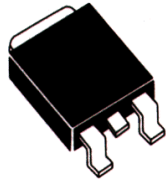
COMPLEMENTARY SILICON  
POWER TRANSISTOR

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CJD44H11, CJD45H11 types are Complementary Silicon Power Transistors manufactured in a surface mount package designed for switching and power amplifier applications.

**DPAK** **POWER!**<sup>TM</sup>



**DPAK CASE**

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

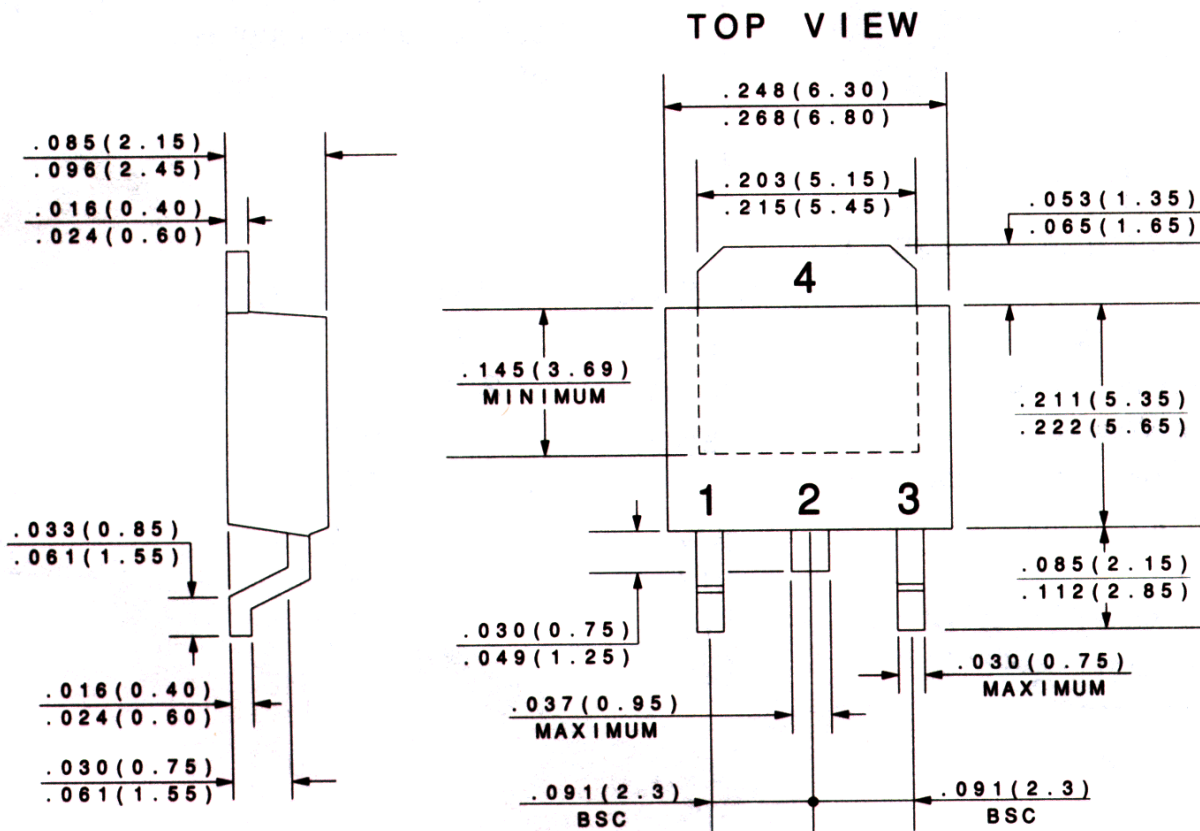
	SYMBOL		UNITS
Collector-Emitter Voltage	$V_{CEO}$	80	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Continuous Collector Current	$I_C$	8.0	A
Peak Collector Current	$I_{CM}$	16	A
Power Dissipation ( $T_C=25^\circ\text{C}$ )	$P_D$	20	W
Power Dissipation ( $T_A=25^\circ\text{C}$ )	$P_D$	1.75	W
Operating and Storage 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	TYP	MAX	UNITS
$I_{CES}$	$V_{CE}=80\text{V}$			10	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$			50	$\mu\text{A}$
$BV_{CEO}$	$I_C=30\text{mA}$	80			V
$V_{CE(SAT)}$	$I_C=8.0\text{A}, I_B=400\text{mA}$			1.0	V
$V_{BE(SAT)}$	$I_C=8.0\text{A}, I_B=800\text{mA}$			1.5	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=2.0\text{A}$	60			
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=4.0\text{A}$	40			
$f_T$	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=20\text{MHz}$ (CJD44H11)		60		MHz
$f_T$	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=20\text{MHz}$ (CJD45H11)		50		MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (CJD44H11)		120		pF
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (CJD45H11)		220		pF
$t_d + t_r$	$I_C=5.0\text{A}, I_{B1}=500\text{mA}$ (CJD44H11)		320		ns
$t_d + t_r$	$I_C=5.0\text{A}, I_{B1}=500\text{mA}$ (CJD45H11)		150		ns

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$t_s$	$I_C=5.0A, I_{B1}=I_{B2}=500mA$ (CJD44H11, CJD45H11)		450		ns
$t_f$	$I_C=5.0A, I_{B1}=I_{B2}=500mA$ (CJD44H11)		130		ns
$t_f$	$I_C=5.0A, I_{B1}=I_{B2}=500mA$ (CJD45H11)		100		ns

All dimensions in inches (mm).



LEAD CODE:

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