



CJD13003

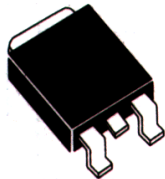
NPN SILICON
POWER TRANSISTOR

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CJD13003 type is an NPN Silicon Power Transistors manufactured in a surface mount package designed for high voltage, high speed power switching inductive applications.

DPAK POWER!TM



DPAK CASE

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

	SYMBOL		UNITS
Collector-Emitter Voltage	V_{CEV}	700	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	9.0	V
Continuous Collector Current	I_C	1.5	A
Peak Collector Current	I_{CM}	3.0	A
Continuous Base Current	I_B	750	mA
Peak Base Current	I_{BM}	1.5	A
Continuous Emitter Current	I_E	2.25	A
Peak Emitter Current	I_{EM}	4.5	A
Power Dissipation ($T_C=25^\circ\text{C}$)	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	TYP	MAX	UNITS
I_{CEV}	$V_{CE}=700\text{V}, V_{BE(\text{off})}=1.5\text{V}$			100	μA
I_{CEV}	$V_{CE}=700\text{V}, V_{BE(\text{off})}=1.5\text{V}, T_C=100^\circ\text{C}$			2.0	mA
I_{EBO}	$V_{EB}=9.0\text{V}$			1.0	mA
BV_{CEO}	$I_C=10\text{mA}$	400			V
$V_{CE(\text{SAT})}$	$I_C=500\text{mA}, I_B=100\text{mA}$			0.5	V
$V_{CE(\text{SAT})}$	$I_C=1.0\text{A}, I_B=250\text{mA}$			1.0	V
$V_{CE(\text{SAT})}$	$I_C=1.5\text{A}, I_B=500\text{mA}$			3.0	V
$V_{CE(\text{SAT})}$	$I_C=1.0\text{A}, I_B=250\text{mA}, T_C=100^\circ\text{C}$			1.0	V

