

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

MJE200

MJE210

COMPLEMENTARY SILICON
POWER TRANSISTORS

JEDEC TO-126 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MJE200, MJE210 types are Complementary Silicon Power Transistors designed for high gain amplifier applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CEO}	25	V
Emitter-Base Voltage	V _{EB0}	8.0	V
Collector Current	I _C	5.0	A
Collector Current (Peak)	I _{CM}	10	A
Base Current	I _B	1.0	A
Power Dissipation	P _D	1.5	W
Power Dissipation (T _C =25°C)	P _D	15	W
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 TO +150	°C
Thermal Resistance	θ _{JA}	83.4	°C/W
Thermal Resistance	θ _{JC}	8.34	°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I _{CB0}	V _{CB} =40V		100	nA
I _{CB0}	V _{CB} =40V, T _J =125°C		100	μA
I _{EB0}	V _{BE} =8.0V		100	nA
BV _{CEO}	I _C =10mA	25		V
V _{CE} (SAT)	I _C =500mA, I _B =50mA		0.3	V
V _{CE} (SAT)	I _C =2.0A, I _B =200mA		0.75	V
V _{CE} (SAT)	I _C =5.0A, I _B =1.0A		1.8	V
V _{BE} (SAT)	I _C =5.0A, I _B =1.0A		2.5	V
V _{BE} (ON)	V _{CE} =1.0V, I _C =2.0A		1.6	V
f _T	V _{CE} =10V, I _C =100mA, f=10MHz	65		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=0.1MHz (MJE200)		80	pF
C _{ob}	V _{CB} =10V, I _E =0, f=0.1MHz (MJE210)		120	pF