

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N6306
2N6307
2N6308

NPN Silicon Transistor

JEDEC TO-3 Case

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6306, 2N6307, and 2N6308 are NPN Silicon Power Transistors designed for high voltage inverters, switching regulators, line operated amplifiers, and switching power supplies.

MAXIMUM RATINGS (T=25°C)

		2N6306	2N6307	2N6308
Collector-Emitter Voltage	V _{CEO}	250V	300V	350V
Collector-Base Voltage	V _{CB0}	500V	600V	700V
Emitter-Base Voltage	V _{EB0}		8V	
Collector Current	I _C		8A	
Base Current	I _B		4A	
Power Dissipation	P _T		125W	
Operating & Storage Junction Temperature	T _J , T _{stg}		-65 to +200°C	

ELECTRICAL CHARACTERISTICS (T=25°C)

Symbol	Test Conditions	2N6306		2N6307		2N6308		Unit
		Min	Max	Min	Max	Min	Max	
I _{CEV}	V _{CE} =rated V _{CB} , V _{EB} =1.5V		500		500		500	uA
I _{CEO}	V _{CE} =rated V _{CE0}		500		500		500	uA
I _{EBO}	V _{EB} =8V		1.0		1.0		1.0	mA
V _{CEO}	I _C =100mA	250		300		350		V
V _{CE(s)}	I _C =3A, I _B =0.6A		0.8		1.0		1.5	V
V _{CE(s)}	I _C =8A, I _B =2A		5.0		5.0			V
V _{CE(s)}	I _C =8A, I _B =2.67A						5.0	V
V _{BE(s)}	I _C =8A, I _B =2A		2.3		2.3			V
V _{BE(s)}	I _C =8A, I _B =2.67A						2.5	V
V _{BE(on)}	V _{CE} =5V, I _C =3A		1.3		1.3		1.5	V
h _{FE}	V _{CE} =5V, I _C =3A	15	75	15	75	12	60	-
h _{FE}	V _{CE} =5V, I _C =8A	4		4		3		-
f _T	V _{CE} =10V, I _C =0.3A, f=1.0 MHZ	5		5		5		MHZ
C _{ob}	V _{CB} =10V, f=1.0 MHZ		250		250		250	pF
t _r	V _{CC} =125V, I _C =3.0A, I _B =0.6A		0.6		0.6		0.6	uS
t _s	V _{CC} =125V, I _C =3.0A, I _B =0.6A		1.6		1.6		1.6	uS
t _f	V _{CC} =125V, I _C =3.0A, I _B =0.6A		0.4		0.4		0.4	uS