

central

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_{CBO}	500V	600V	700V
Emitter-Base Voltage	V_{EBO}		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	500	uA
I_{CEO}	V_{CE} =rated V_{CEO}			500	500	500	500	uA
I_{EBO}	$V_{EB}=8V$		1.0	1.0	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	1.0	1.5	1.5	V
$V_{CE(s)}$	$I_C=8A, I_B=2A$		5.0	5.0	5.0			V
$V_{CE(s)}$	$I_C=8A, I_B=2.67A$					5.0	5.0	V
$V_{BE(s)}$	$I_C=8A, I_B=2A$		2.3	2.3	2.3			V
$V_{BE(s)}$	$I_C=8A, I_B=2.67A$					2.5	2.5	V
$V_{BE(on)}$	$V_{CE}=5V, I_C=3A$		1.3	1.3	1.3	1.5	1.5	V
hFE	$V_{CE}=5V, I_C=3A$	15	75	15	75	12	60	-
hFE	$V_{CE}=5V, I_C=8A$	4		4	4	3		-
f_T	$V_{CE}=10V, I_C=0.3A, f=1.0 \text{ MHZ}$	5		5	5	5		MHZ
C_{ob}	$V_{CB}=10V, f=1.0 \text{ MHZ}$		250	250	250	250	250	pF
t_r	$V_{CC}=125V, I_C=3.0A, I_B=0.6A$		0.6	0.6	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	1.6	1.6	uS
t_f	$V_{CC}=125V, I_C=3.0A, I_B=0.6A$		0.4	0.4	0.4	0.4	0.4	uS

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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