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#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR TIP30 series devices are silicon PNP epitaxial-base power transistors designed for power amplifier and high speed switching applications.

#### MARKING: FULL PART NUMBER

**MAXIMUM RATINGS:** (T<sub>C</sub>=25°C unless otherwise noted)

**TO-220 CASE** 

	SYMBOL	TIP30	TIP30A	TIP30B	TIP30C	UNITS
Collector-Base Voltage	V <sub>CBO</sub>	40	60	80	100	V
Collector-Emitter Voltage	VCEO	40	60	80	100	V
Emitter-Base Voltage	VEBO		5	.0		V
Continuous Collector Current	IС		1	.0		А
Peak Collector Current	ICM		3	.0		А
Continuous Base Current	Ι <sub>Β</sub>		0	.4		А
Power Dissipation	PD		3	0		W
Power Dissipation (T <sub>A</sub> =25°C)	PD		2	.0		W
Operating and Storage Junction Temperature	т <sub>Ј</sub> , т <sub>stg</sub>		-65 to	+150		°C
ELECTRICAL CHARACTERISTICS: (T <sub>C</sub> =25°C un	less otherwis	e noted)				

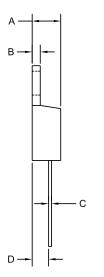
ELECTRICAL CHARACTERISTICS: (T <sub>C</sub> =25°C unless otherwise noted)					
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
ICEO	V <sub>CE</sub> =30V (TIP30, TIP30A)			0.3	mA
ICEO	V <sub>CE</sub> =60V (TIP30B, TIP30C)			0.3	mA
ICES	V <sub>CE</sub> =Rated V <sub>CEO</sub>			0.2	mA
IEBO	V <sub>EB</sub> =5.0V			1.0	mA
BVCEO	I <sub>C</sub> =30mA (TIP30)	40			V
BVCEO	I <sub>C</sub> =30mA (TIP30A)	60			V
BVCEO	I <sub>C</sub> =30mA (TIP30B)	80			V
BVCEO	I <sub>C</sub> =30mA (TIP30C)	100			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =1.0A, I <sub>B</sub> =125mA			0.7	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =1.0A			1.3	V
h <sub>FE</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =0.2A	40			
h <sub>FE</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =1.0A	15		75	
h <sub>fe</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.2A, f=1.0kHz	20			
fT	V <sub>CE</sub> =10V, I <sub>C</sub> =0.2A, f=1.0MHz	3.0			MHz
t <sub>on</sub>	$I_{C}$ =1.0A, $I_{B1}$ = $I_{B2}$ =0.1A, $R_{L}$ =30 $\Omega$		0.3		μs
toff	$I_{C}$ =1.0A, $I_{B1}$ = $I_{B2}$ =0.1A, R <sub>L</sub> =30Ω		1.0		μs

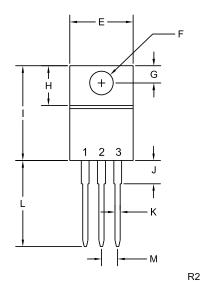
R1 (12-March 2014)



TIP30 TIP30A TIP30B TIP30C SILICON **PNP POWER TRANSISTORS** 

**TO-220 CASE - MECHANICAL OUTLINE** 





LEAD CODE:
1) Base
2) Collector
3) Emitter
Tab) Collector

MARKING: FULL PART NUMBER

DIMENSIONS					
	INCHES		MILLIMETERS		
SYMBOL	MIN	MAX	MIN	MAX	
А	0.170	0.190	4.31	4.82	
В	0.045	0.055	1.15	1.39	
С	0.013	0.026	0.33	0.65	
D	0.083	0.107	2.10	2.72	
E	0.394	0.417	10.01	10.60	
F (DIA)	0.140	0.157	3.55	4.00	
G	0.100	0.118	2.54	3.00	
Н	0.230	0.270	5.85	6.85	
	0.560	0.625	14.23	15.87	
J	-	0.250	-	6.35	
K	0.025	0.038	0.64	0.96	
L	0.500	0.579	12.70	14.70	
М	0.090	0.110	2.29	2.79	
TO-220 (REV R2)					

TO-220 (REV: R2)

R1 (12-March 2014)

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### 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

## DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> day air)
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- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities

Special wafer diffusions

· Custom product packing

- PbSn plating options
- Package details
- Application notes
- Application and design sample kits

· Custom bar coding for shipments

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

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp. 145 Adams Avenue Hauppauge, NY 11788 USA Main Tel: (631) 435-1110 Main Fax: (631) 435-1824 Support Team Fax: (631) 435-3388 www.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

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