

TIP30
TIP30A
TIP30B
TIP30C

SILICON
PNP POWER TRANSISTORS



TO-220 CASE



www.centrasemi.com

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: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	TIP30	TIP30A	TIP30B	TIP30C	UNITS
Collector-Base Voltage	V_{CBO}	40	60	80	100	V
Collector-Emitter Voltage	V_{CEO}	40	60	80	100	V
Emitter-Base Voltage	V_{EBO}			5.0		V
Continuous Collector Current	I_C			1.0		A
Peak Collector Current	I_{CM}			3.0		A
Continuous Base Current	I_B			0.4		A
Power Dissipation	P_D			30		W
Power Dissipation ($T_A=25^{\circ}\text{C}$)	P_D			2.0		W
Operating and Storage Junction Temperature	T_J, T_{stg}			-65 to +150		$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

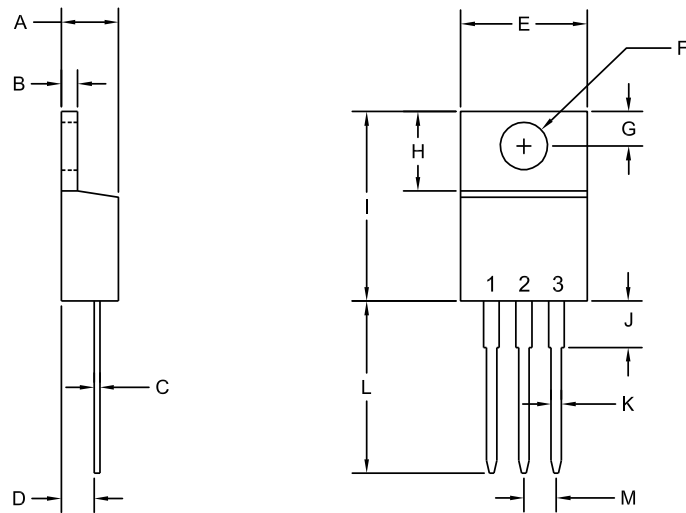
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CEO}	$V_{CE}=30\text{V}$ (TIP30, TIP30A)			0.3	mA
I_{CEO}	$V_{CE}=60\text{V}$ (TIP30B, TIP30C)			0.3	mA
I_{CES}	$V_{CE}=\text{Rated } V_{CEO}$			0.2	mA
I_{EBO}	$V_{EB}=5.0\text{V}$			1.0	mA
BV_{CEO}	$I_C=30\text{mA}$ (TIP30)	40			V
BV_{CEO}	$I_C=30\text{mA}$ (TIP30A)	60			V
BV_{CEO}	$I_C=30\text{mA}$ (TIP30B)	80			V
BV_{CEO}	$I_C=30\text{mA}$ (TIP30C)	100			V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=125\text{mA}$			0.7	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}$			1.3	V
h_{FE}	$V_{CE}=4.0\text{V}, I_C=0.2\text{A}$	40			
h_{FE}	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}$	15		75	
h_{fe}	$V_{CE}=10\text{V}, I_C=0.2\text{A}, f=1.0\text{kHz}$	20			
f_T	$V_{CE}=10\text{V}, I_C=0.2\text{A}, f=1.0\text{MHz}$	3.0			MHz
t_{on}	$I_C=1.0\text{A}, I_{B1}=I_{B2}=0.1\text{A}, R_L=30\Omega$		0.3		μs
t_{off}	$I_C=1.0\text{A}, I_{B1}=I_{B2}=0.1\text{A}, R_L=30\Omega$		1.0		μs

R1 (12-March 2014)

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TO-220 CASE - MECHANICAL OUTLINE



R2

LEAD CODE:

- 1) Base
- 2) Collector
- 3) Emitter
- Tab) Collector

MARKING:
FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.170	0.190	4.31	4.82
B	0.045	0.055	1.15	1.39
C	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
H	0.230	0.270	5.85	6.85
I	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
M	0.090	0.110	2.29	2.79

TO-220 (REV: R2)

R1 (12-March 2014)

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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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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms

Product End of Life Notification

PDN ID:	PDN01200
Notification Date:	11/19/21
Last Buy Date:	5/19/22
Last Shipment Date	11/19/22

Summary: The TIP30 power transistor series is discontinued and now classified as of End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
TIP30	TIP32
TIP30A	TIP32A
TIP30A SL	TIP32A SL
TIP30B	TIP32B
TIP30C	TIP32C

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit <https://my.centrasemi.com/submit-inquiry?type=ER> to submit an online inquiry.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.