



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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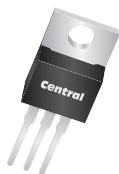
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TIP42
TIP42A
TIP42B
TIP42C

**PNP SILICON
POWER TRANSISTOR**



TO-220 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR TIP42 SERIES types are PNP Epitaxial-Base Silicon Power Transistors designed for power amplifier and high speed switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$)

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		6.0			A
Peak Collector Current	I_{CM}		10			A
Continuous Base Current	I_B		2.0			A
Power Dissipation	P_D		65			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			$^\circ\text{C}$

SYMBOL	TIP42	TIP42A	TIP42B	TIP42C	UNITS
V_{CBO}	40	60	80	100	V
V_{CEO}	40	60	80	100	V
V_{EBO}		5.0			V
I_C		6.0			A
I_{CM}		10			A
I_B		2.0			A
P_D		65			W
P_D		2.0			W
T_J, T_{stg}		-65 to +150			$^\circ\text{C}$

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

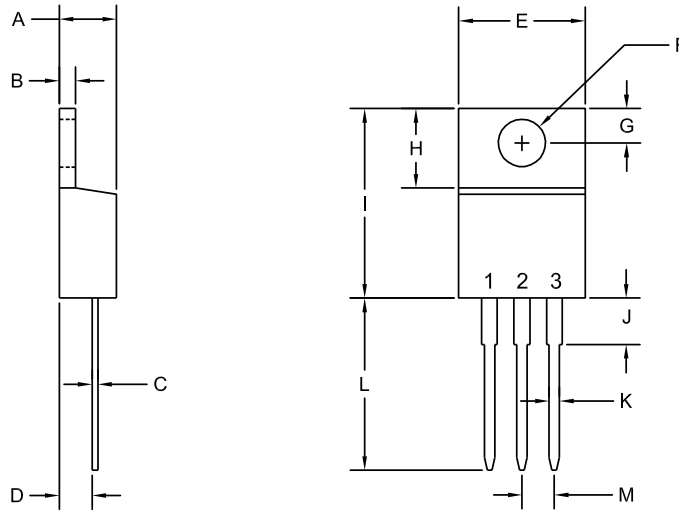
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CEO}	$V_{CE}=30\text{V}$ (TIP42, TIP42A)			0.7	mA
I_{CEO}	$V_{CE}=60\text{V}$ (TIP42B, TIP42C)			0.7	mA
I_{CES}	$V_{CE}=\text{Rated } V_{CEO}$			0.4	mA
I_{EBO}	$V_{EB}=5.0\text{V}$			1.0	mA
BV_{CEO}	$I_C=30\text{mA}$ (TIP42)	40			V
BV_{CEO}	$I_C=30\text{mA}$ (TIP42A)	60			V
BV_{CEO}	$I_C=30\text{mA}$ (TIP42B)	80			V
BV_{CEO}	$I_C=30\text{mA}$ (TIP42C)	100			V
$V_{CE(SAT)}$	$I_C=6.0\text{A}, I_B=0.6\text{A}$			1.5	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=6.0\text{A}$			2.0	V
h_{FE}	$V_{CE}=4.0\text{V}, I_C=0.3\text{A}$	30			
h_{FE}	$V_{CE}=4.0\text{V}, I_C=3.0\text{A}$	15		75	
h_{fe}	$V_{CE}=10\text{V}, I_C=0.5\text{A}, f=1.0\text{kHz}$	20			
f_T	$V_{CE}=10\text{V}, I_C=0.5\text{A}, f=1.0\text{MHz}$	3.0			MHz
t_{on}	$I_C=6.0\text{A}, I_{B1}=I_{B2}=0.6\text{A}, R_L=5.0\Omega$		0.4		μs
t_{off}	$I_C=6.0\text{A}, I_{B1}=I_{B2}=0.6\text{A}, R_L=5.0\Omega$		0.7		μs

R2 (22-July 2014)

TIP42
 TIP42A
 TIP42B
 TIP42C
 PNP SILICON
 POWER TRANSISTOR



TO-220 CASE - MECHANICAL OUTLINE



R2

LEAD CODE:

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

MARKING:
 FULL PART NUMBER

SYMBOL	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)

R2 (22-July 2014)

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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