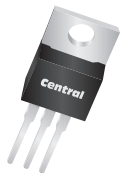
TIP32
TIP32A
TIP32B
TIP32C

SILICON
PNP POWER TRANSISTORS



TO-220 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:
The CENTRAL SEMICONDUCTOR TIP32 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°C unless otherwise noted)

	SYMBOL	TIP32	TIP32A	TIP32B	TIP32C	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		3.0			A
Peak Collector Current	I_{CM}		5.0			A
Continuous Base Current	I_B		1.0			A
Power Dissipation	P_D		40			W
Power Dissipation (T_A=25°C)	P_D		2.0			W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150			°C
Thermal Resistance	Θ_{JA}		62.5			°C/W
Thermal Resistance	Θ_{JC}		3.13			°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CEO}	V_{CE}=30V (TIP32, TIP32A)			0.3	mA
I_{CEO}	V_{CE}=60V (TIP32B, TIP32C)			0.3	mA
I_{CES}	V_{CE}=Rated V_{CEO}			0.2	mA
I_{EBO}	V_{EB}=5.0V			1.0	mA
BV_{CEO}	I_C=30mA (TIP32)	40			V
BV_{CEO}	I_C=30mA (TIP32A)	60			V
BV_{CEO}	I_C=30mA (TIP32B)	80			V
BV_{CEO}	I_C=30mA (TIP32C)	100			V
$V_{CE(SAT)}$	I_C=3.0A, I_B=375mA			1.2	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=3.0A			1.8	V
h_{FE}	V_{CE}=4.0V, I_C=1.0A	25			
h_{FE}	V_{CE}=4.0V, I_C=3.0A	10		50	
h_{fe}	V_{CE}=10V, I_C=0.5A, f=1.0kHz	20			
f_T	V_{CE}=10V, I_C=0.5A, f=1.0MHz	3.0			MHz
t_{on}	I_C=1.0A, I_{B1}=I_{B2}=0.1A, R_L=30Ω		0.3		μs
t_{off}	I_C=1.0A, I_{B1}=I_{B2}=0.1A, R_L=30Ω		1.0		μs

TIP32
TIP32A
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SILICON
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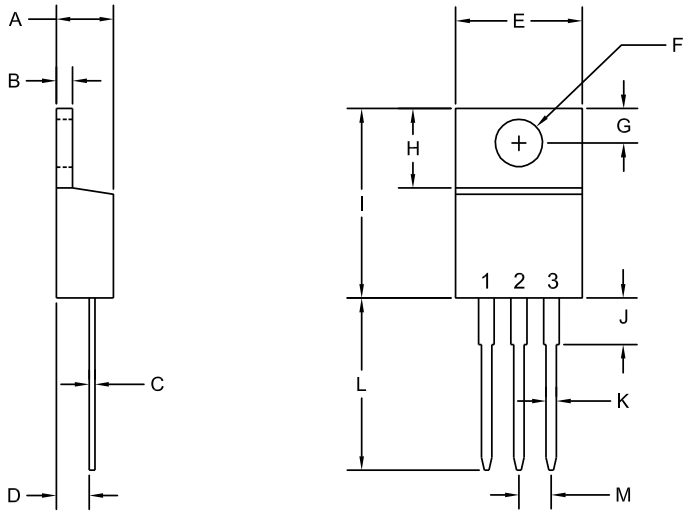
TO-220 CASE - MECHANICAL OUTLINE



R2

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

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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-June 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

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

Worldwide Distributors:
www.centralsemi.com/wwdistributors

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