



Micro Commercial Components

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# TIP32/A/B/C

## Features

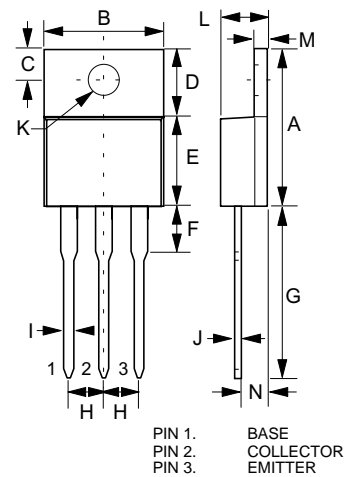
- TO-220 package
- The complementary NPN types are the TIP31 respectively
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking : Part Number

## Silicon PNP Power Transistors

Absolute Maximum Ratings @  $T_a = 25^\circ\text{C}$  (unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CBO}$ TIP32 TIP32A TIP32B TIP32C	Collector-base voltage (Open emitter)	-40 -60 -80 -100	V
$V_{CEO}$ TIP32 TIP32A TIP32B TIP32C	Collector-emitter voltage (Open base)	-40 -60 -80 -100	V
$V_{EBO}$	Emitter-base Voltage (Open collector)	-5	V
$I_C$	Collector Current	-3	A
$I_{CM}$	Collector Current Pulse	-5	A
$I_B$	Base Current	-1	A
$P_C$	Total Device Dissipation( $T_a=25^\circ\text{C}$ )	2	W
	Total Device Dissipation( $T_c=25^\circ\text{C}$ )	40	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$

## TO-220



Electrical Characteristics @  $25^\circ\text{C}$  Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
$V_{CEO(SUS)}$ TIP32 TIP32A TIP32B TIP32C	Collector-emitter sustaining voltage ( $I_C=-30\text{mA}$ ; $I_B=0$ )	-40 -60 -80 -100		V
$V_{CE(sat)}$	Collector-emitter Saturation Voltage ( $I_C=-3A$ $I_B=-0.375A$ )		-1.2	V
$V_{BE}$	Base-emitter Voltage ( $I_C=-3A$ ; $V_{CE}=-4V$ )		-1.8	V
$I_{CES}$ TIP32 TIP32A TIP32B TIP32C	Collector cut-off current ( $V_{CE}=-40V$ ; $V_{EB}=0$ ) ( $V_{CE}=-60V$ ; $V_{EB}=0$ ) ( $V_{CE}=-80V$ ; $V_{EB}=0$ ) ( $V_{CE}=-100V$ ; $V_{EB}=0$ )	-0.2		mA
$I_{CEO}$ TIP32/32A TIP32B/32C	Collector cut-off current ( $-V_{CE}=30V$ ; $V_{EB}=0$ ) ( $-V_{CE}=60V$ ; $V_{EB}=0$ )	-0.3		mA
$I_{EBO}$	Emitter cut-off current ( $-V_{EB}=5V$ ; $I_C=0$ )		-1.0	mA
$H_{fe}$	DC current gain ( $I_C=-1A$ ; $V_{CE}=-4V$ ) ( $I_C=-3A$ ; $V_{CE}=-4V$ )	25 10	50	
$f_T$	Transition frequency ( $I_C=-0.5A$ ; $V_{CE}=-10V$ )	3		MHZ

### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.335	.368	8.50	9.35	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.090	.110	2.29	2.79	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	



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