



Micro Commercial Components

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# TIP42/42A/42B/42C

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- The complementary NPN types are the TIP41 respectively
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking : Part Number

## Silicon PNP Power Transistors

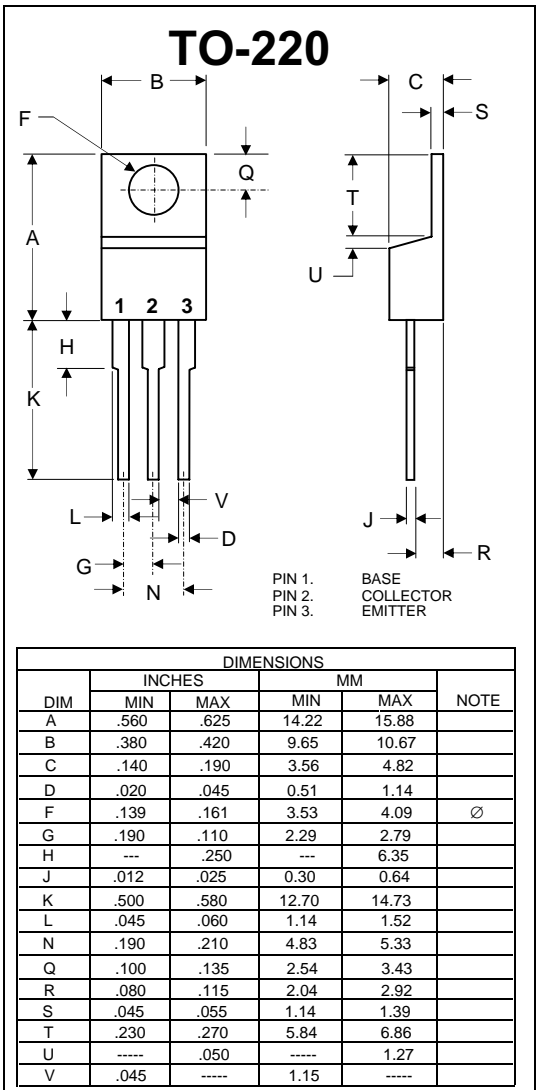
### Absolute Maximum Ratings @ T<sub>j</sub> = 25°C (unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub> TIP42 TIP42A TIP42B TIP42C	Collector-base voltage (Open emitter)	-40 -60 -80 -100	V
V <sub>CE0</sub> TIP42 TIP42A TIP42B TIP42C	Collector-emitter voltage (Open base)	-40 -60 -80 -100	V
V <sub>EB0</sub>	Emitter-base Voltage (Open collector)	-5	V
I <sub>C</sub>	Collector Current	-6	A
I <sub>CM</sub>	Collector Current Pulse	-10	A
I <sub>B</sub>	Base Current	-2	A
P <sub>C</sub>	Total Device Dissipation (T <sub>a</sub> =25°C)	-2	W
	Total Device Dissipation (T <sub>c</sub> =25°C)	65	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature Range	-65 to +150	°C

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
V <sub>CE0(SUS)</sub> TIP42 TIP42A TIP42B TIP42C	Collector-emitter sustaining voltage (I <sub>C</sub> =-30mA; I <sub>B</sub> =0)	-40 -60 -80 -100		V
V <sub>CE(sat)</sub>	Collector-emitter Saturation Voltage (I <sub>C</sub> =-6A; I <sub>B</sub> =-0.6A)		-1.5	V
V <sub>BE</sub>	Base-emitter Voltage (I <sub>C</sub> =-6A; V <sub>CE</sub> =-4V)		-2.0	V
I <sub>CE(s)</sub> TIP42 TIP42A TIP42B TIP42C	Collector cut-off current (V <sub>CE</sub> =-40V; V <sub>EB</sub> =0) (V <sub>CE</sub> =-60V; V <sub>EB</sub> =0) (V <sub>CE</sub> =-80V; V <sub>EB</sub> =0) (V <sub>CE</sub> =-100V; V <sub>EB</sub> =0)	-0.4		mA
I <sub>CEO</sub> TIP42/42A TIP42B/C	Collector cut-off current (V <sub>CE</sub> =-30V; V <sub>EB</sub> =0) (V <sub>CE</sub> =-60V; V <sub>EB</sub> =0)	-0.7		mA
I <sub>EBO</sub>	Emitter cut-off current (V <sub>EB</sub> =-5V; I <sub>C</sub> =0)		-1.0	mA
h <sub>fe</sub>	DC current gain (I <sub>C</sub> =-0.3A; V <sub>CE</sub> =-4V) (I <sub>C</sub> =-3A; V <sub>CE</sub> =-4V)	30 15	75	
f <sub>T</sub>	Transition frequency (I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-10V)	3		MHZ

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.





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## Ordering Information

Device	Packing
(Part Number)-BP	Bulk; 1Kpcs/Box

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