



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
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : Part Number

## Silicon PNP Power Transistors

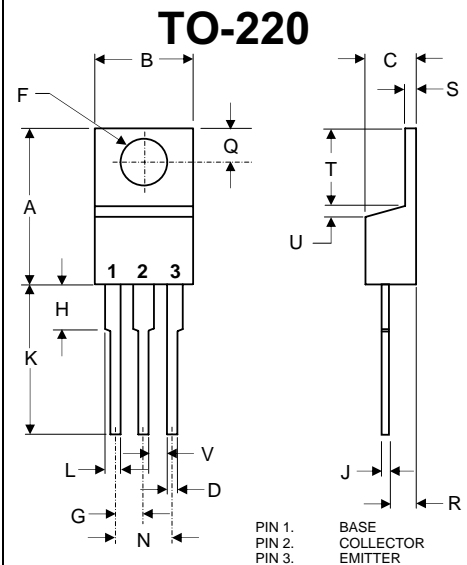
### Absolute Maximum Ratings @ T<sub>a</sub> = 25°C (unless otherwise noted)

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>EBO</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>CES</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.



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	----	.050	----	1.27	
V	.045	----	1.15	----	



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### Ordering Information :

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

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