



**Micro Commercial Components** 

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## TIP42/42A/42B/42C

## **Features**

- Halogen free available upon request by adding suffix "-HF" Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
  The complementary NPN types are him representations.
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking: Part Number
- Mounting Torgue: 5 in-lbs Maximum

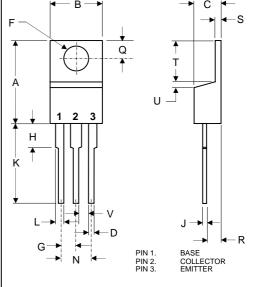
## Silicon PNP **Power Transistors**

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

Symbol	Parameter	Value	Unit
V <sub>CBO</sub> TIP42 TIP42A TIP42B TIP42C	Collector-base voltage (Open emitter)	-40 -60 -80 -100	٧
V <sub>CEO</sub> TIP42 TIP42A TIP42B TIP42C	Collector-emitter voltage (Open base)	-40 -60 -80 -100	V
$V_{EBO}$	Emitter-base Voltage (Open collector)	-5	V
Ic	Collector Current	-6	Α
I <sub>CM</sub>	Collector Current Pulse	-10	Α
Ι <sub>Β</sub>	Base Current	-2	Α
В	Total Device Dissipation(Ta=25°C)	-2	W
Pc	Total Device Dissipation(Tc=25°C)	65	W
TJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature Range	-65 to +150	℃

## Electrical Characteristics @ 25°C Unless Otherwise Specified

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



**TO-220** 

DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.560	.625	14.22	15.88	
В	.380	.420	9.65	10.67	
С	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	Ø
G	.190	.110	2.29	2.79	
Н		.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		

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



### **Micro Commercial Components**

## **Ordering Information:**

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

Note: Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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