

**M·C·C·**

Micro Commercial Components



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## 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 the TIP41 respectively
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : Part Number
- Mounting Torque: 5 in-lbs Maximum

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

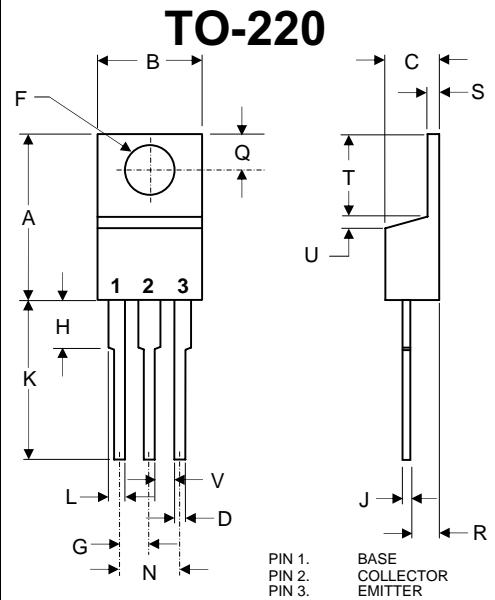
Symbol	Parameter	Value	Unit
$V_{CBO}$ TIP42 TIP42A TIP42B TIP42C	Collector-base voltage (Open emitter)	-40 -60 -80 -100	V
$V_{CEO}$ TIP42 TIP42A TIP42B TIP42C	Collector-emitter voltage (Open base)	-40 -60 -80 -100	V
$V_{EBO}$	Emitter-base Voltage (Open collector)	-5	V
$I_C$	Collector Current	-6	A
$I_{CM}$	Collector Current Pulse	-10	A
$I_B$	Base Current	-2	A
$P_c$	Total Device Dissipation( $T_a=25^\circ\text{C}$ )	-2	W
	Total Device Dissipation( $T_c=25^\circ\text{C}$ )	65	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$

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

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

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

### Silicon PNP Power Transistors



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	Ø
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	-----	

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

## 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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