



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

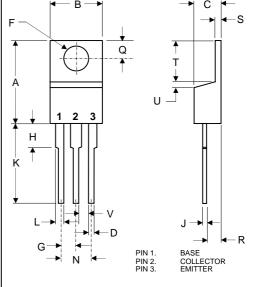
Silicon PNP **Power Transistors**

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

| Symbol | Parameter | Value | Unit |
|---|--|---------------------------|------|
| V _{CBO} TIP42 TIP42A TIP42B TIP42C | Collector-base voltage (Open emitter) | -40 -60 -80 -100 | ٧ |
| 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 |
| Ic | Collector Current | -6 | Α |
| I _{CM} | Collector Current Pulse | -10 | Α |
| Ι _Β | 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 _{STG} | Storage Temperature Range | -65 to +150 | ℃ |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|--|---|---------------------------|------|-------|
| V _{CEO(SUS)} TIP42 TIP42A TIP42B TIP42C | Collector-emitter sustaining voltage (I _C =-30mA; I _B =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 _{CES} 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 _{CEO} TIP42/42A TIP42B/C | Collector cut-off current $(V_{CE}=-30V; V_{EB}=0)$ $(V_{CE}=-60V; V_{EB}=0)$ | -0.7 | | mA |
| I _{EBO} | Emitter cut-off current $(V_{EB}=-5V; I_{C}=0)$ | | -1.0 | mA |
| h _{fe} | DC current gain (I_C =-0.3A ; V_C =-4V) (I_C =-3A ; V_C =-4V) | 30 15 | 75 | |
| f _T | 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.



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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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