



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

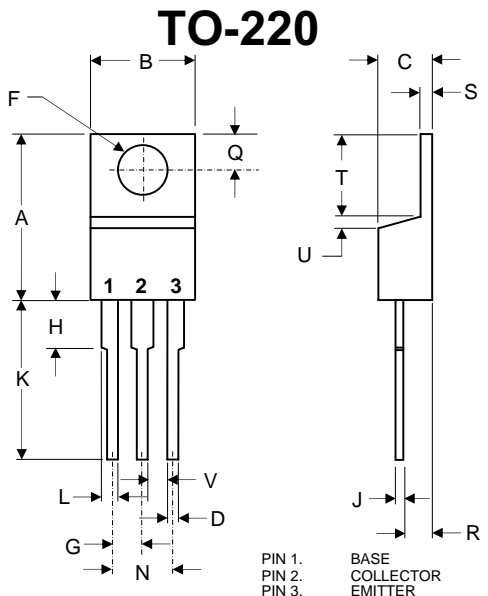
Silicon PNP Power Transistors

Absolute Maximum Ratings @ T_a = 25°C (unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|---------------------------------------------------------|-------------------------------------------------|---------------------------|------|
| V _{CB0} TIP42 TIP42A TIP42B TIP42C | Collector-base voltage (Open emitter) | -40 -60 -80 -100 | V |
| V _{CE0} 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°C) | -2 | W |
| | Total Device Dissipation (T _c =25°C) | 65 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{STG} | Storage Temperature Range | -65 to +150 | °C |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------|-------|
| V _{CE0(SUS)} TIP42 TIP42A TIP42B TIP42C | Collector-emitter sustaining voltage (I _C =-30mA; I _B =0) | -40 -60 -80 -100 | | V |
| V _{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} =-40V; V _{EB} =0) (V _{CE} =-60V; V _{EB} =0) (V _{CE} =-80V; V _{EB} =0) (V _{CE} =-100V; 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 _{CE} =-4V) (I _C =-3A; V _{CE} =-4V) | 30 15 | 75 | |
| f _T | Transition frequency (I _C =-0.5A; V _{CE} =-10V) | 3 | | MHZ |



| 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 | ----- | |

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



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Ordering Information :

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

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

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