

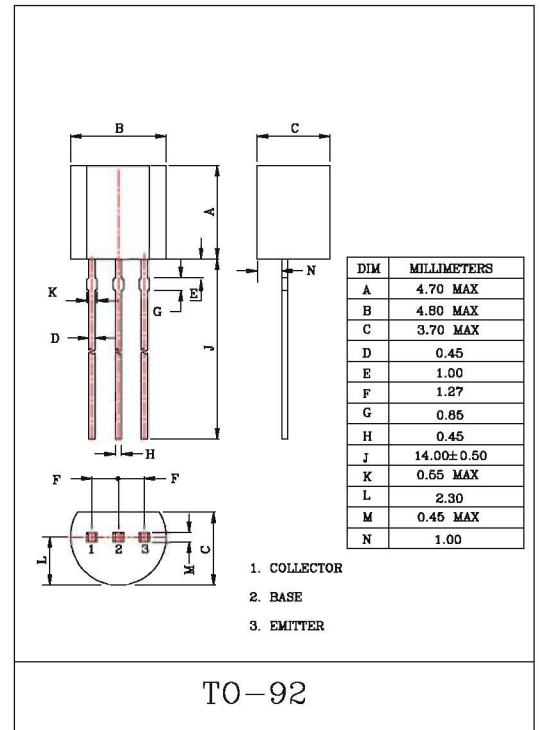
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION .

FEATURES

- High Voltage : BC546 $V_{CEO}=65V$.
- For Complementary With PNP Type BC556/557/558.

MAXIMUM RATINGS ($T_a=25^{\circ}C$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|-------------|
| Collector-Base Voltage | BC546 | 80 | V |
| | BC547 | 50 | |
| | BC548 | 30 | |
| Collector-Emitter Voltage | BC546 | 65 | V |
| | BC547 | 45 | |
| | BC548 | 30 | |
| Emitter-Base Voltage | BC546 | 6 | V |
| | BC547 | 6 | |
| | BC548 | 5 | |
| Collector Current | BC546 | 100 | mA |
| | BC547 | 100 | |
| | BC548 | 100 | |
| Emitter Current | BC546 | -100 | mA |
| | BC547 | -100 | |
| | BC548 | -100 | |
| Collector Power Dissipation | P_C | 625 | mW |
| Junction Temperature | T_j | 150 | $^{\circ}C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^{\circ}C$ |



BC546/7/8

ELECTRICAL CHARACTERISTICS (T_a=25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-------|----------------------|----------------------------------------------------------------------------|------|------|------|------|
| Collector Cut-off Current | | I _{CBO} | V _{CB} =30V, I _E =0 | - | - | 15 | nA |
| DC Current Gain (Note) | BC546 | h _{FE} | V _{CE} =5V, I _C =2mA | 110 | - | 450 | |
| | BC547 | | | 110 | - | 800 | |
| | BC548 | | | 110 | - | 800 | |
| Collector-Emitter Saturation Voltage | | V _{CE(sat)} | I _C =100mA, I _B =5mA | - | - | 0.6 | V |
| Base-Emitter Saturation Voltage | | V _{BE(sat)} | I _C =100mA, I _B =5mA | - | 0.9 | 1.1 | V |
| Base-Emitter Voltage | | V _{BE(ON1)} | V _{CE} =5V, I _C =2mA | 0.58 | - | 0.7 | V |
| | | V _{BE(ON2)} | V _{CE} =5V, I _C =10mA | - | - | 0.75 | V |
| Transition Frequency | | f _T | V _{CE} =5V, I _C =10mA, f=100MHz | - | 150 | - | MHz |
| Collector Output Capacitance | | C _{ob} | V _{CB} =10V, f=1MHz | - | - | 4.5 | pF |
| Noise Figure | | NF | V _{CE} =6V, I _C =0.1mA R _g =10kΩ, f=1kHz | - | 1.0 | 10 | dB |

NOTE : According to the value of h_{FE} the BC546, BC547, BC548 are classified as follows.

| CLASSIFICATION | | none | A | B | C |
|-----------------|-------|---------|---------|---------|---------|
| h _{FE} | BC546 | 110~450 | 110~220 | 200~450 | - |
| | BC547 | 110~800 | 110~220 | 200~450 | 420~800 |
| | BC548 | 110~800 | 110~220 | 200~450 | 420~800 |

