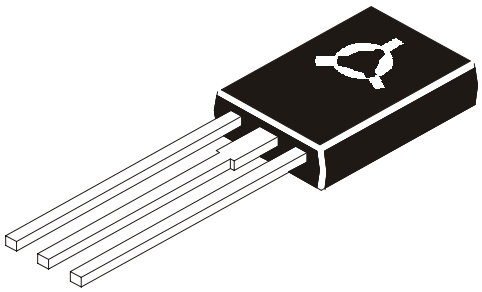
# NPN PLASTIC MEDIUM POWER SILICON TRANSISTORS

**BD157, BD158**
**TO-126**



## Designed For Power Output Stages for Television, Radio, Phonograph And Other Consumer Applications.

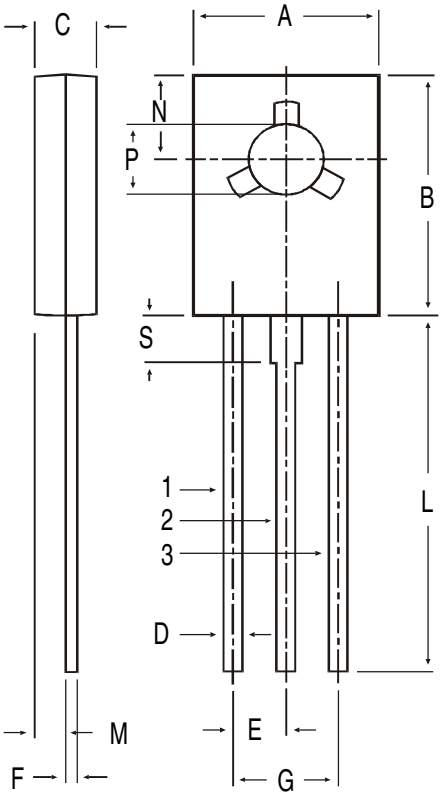
### ABSOLUTE MAXIMUM RATINGS

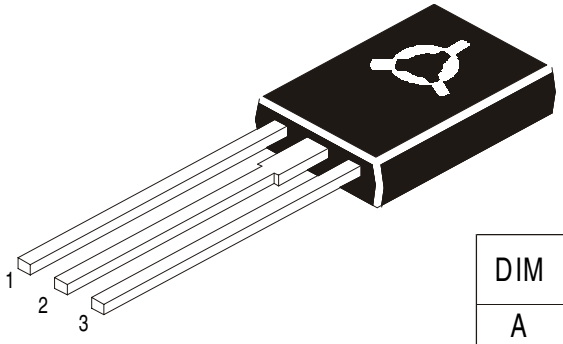
| DESCRIPTION | SYMBOL | BD157 | BD158 | UNIT |
|---|---|---|---|---|
| **Collector -Emitter Voltage** | VCEO | 250 | 300 | V |
| **Collector -Base Voltage** | VCBO | 275 | 325 | V |
| **Emitter Base Voltage** | VEBO | 5.0 | | V |
| **Collector Current Continuous** | IC | 0.5 | | A |
| **Peak** | IC | 1.0 | | A |
| **Base Current** | IB | 0.25 | | A |
| **Power Dissipation @ Ta=25 deg C** | PD | 2.0 | | W |
| **@ Tc=25 deg C** | | 20 | | W |
| **Derate Above =25 deg C** | | 0.16 | | mW/deg C |
| **Operating & Storage Junction Temperature Range** | Tj, Tstg | -65 to +150 | | deg C |
| **THERMAL RESISTANCE** | | | | |
| **Junction to Case** | Rth (j-c) | 6.25 | | deg C/W |

### ELECTRICAL CHARACTERISTICS (Tc=25 deg C unless specified)

| DESCRIPTION | SYMBOL | TEST CONDITION | | MIN | MAX | UNIT |
|---|---|---|---|---|---|---|
| **Collector-Emitter Sustaining Voltage** | VCEO | IC=1mA, IB=0 | **BD157** | 250 | - | V |
| | | | **BD158** | 300 | - | V |
| **Collector-Base Voltage** | VCBO | IC=100uA, IE=0 | **BD157** | 275 | - | V |
| | | | **BD158** | 325 | - | V |
| **Emitter Base Voltage** | VEBO | IE=1mA, IC=0 | | 5.0 | - | V |
| **Collector Cut-off Current** | ICBO | VCB=275V, IE=0 | **BD157** | - | 100 | uA |
| | | VCB=325V, IE=0 | **BD158** | - | 100 | uA |
| **Emitter Cut-off Current** | IEBO | VBE=5V,IC=0 | | - | 100 | uA |
| **DC Current Gain** | hFE | IC=50mA,VCE=10V | | 30 | 240 | |
| **Collector Emitter Saturation Voltage** | VCESAT | IC=50mA, IB=5mA | | - | 1.0 | V |
| **Base Emitter Saturation Voltage** | VBESAT | IC=50mA, IB=5mA | | - | 1.0 | V |
| **Current-Gain-Bandwidth Product** | ft | IC=10mA, VCE=10V f=5 MHz | | 15 | - | MHz |
| **Output Capacitance** | Cob | VCB=20V, f=1MHz | | Typ10 | | pF |

## TO-126 (SOT-32) Plastic Package




PIN CONFIGURATION
1. EMITTER
2. COLLECTOR
3. BASE

All dimensions in mm.

| DIM | MIN. | MAX. |
|---|---|---|
| A | 7.4 | 7.8 |
| B | 10.5 | 10.8 |
| C | 2.4 | 2.7 |
| D | 0.7 | 0.9 |
| E | 2.25 TYP. | |
| F | 0.49 | 0.75 |
| G | 4.5 TYP. | |
| L | 15.7 TYP. | |
| M | 1.27 TYP. | |
| N | 3.75 TYP. | |
| P | 3.0 | 3.2 |
| S | 2.5 TYP. | |

## Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|---|---|---|---|---|---|---|---|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| TO-126 | 500 pcs/polybag | 340 gm/500 pcs | 3" x 7.5" x 7.5" | 2.0K | 17" x 15" x 13.5" | 32.0K | 31 kgs |

## Disclaimer

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