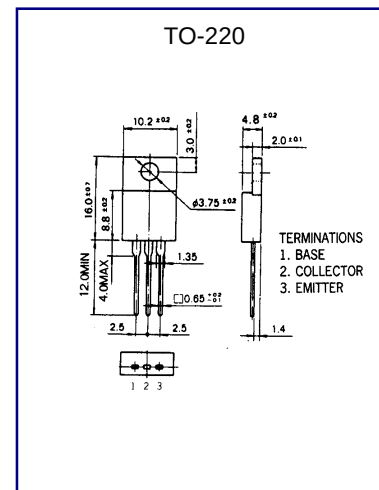




**BUT11/11A**

**NPN SILICON TRANSISTOR**

**HIGH VOLTAGE POWER  
SWITCHING APPLICATIONS**



**ABSOLUTE MAXIMUM RATINGS (Ta=25°C)**

| Characteristic                   | Symbol | Rating  | Unit |
|----------------------------------|--------|---------|------|
| Collector-Emitter Voltage: BUT11 | VCES   | 850     | V    |
| : BUT11A                         |        | 1000    | V    |
| Collector-Emitter Voltage: BUT11 | VCEO   | 400     | V    |
| : BUT11A                         |        | 450     | V    |
| Emitter-Base Voltage             | VEBO   | 9       | V    |
| Collector Current (DC)           | IC     | 5       | A    |
| Collector Current (Pulse)        | IC     | 10      | A    |
| Base Current (DC)                | IB     | 2       | A    |
| Base Current (Pulse)             | IB     | 4       | A    |
| Collector Dissipation (Tc=25°C)  | PC     | 100     | W    |
| Junction Temperature             | Tj     | 150     | °C   |
| Storage Temperature              | Tstg   | -65~150 | °C   |

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

| Characteristic                               | Symbol   | Test Condition                    | Min | Typ | Max | Unit |
|----------------------------------------------|----------|-----------------------------------|-----|-----|-----|------|
| Collector Emitter Sustaining Voltage : BUT11 | VCE(SUS) | IC=100mA, IB=0                    | 400 |     |     | V    |
| : BUT11A                                     |          |                                   | 450 |     |     | V    |
| Collector Cutoff Current : BUT11             | ICES     | VCE= 850V, VEB= 0                 |     |     | 1   | mA   |
| : BUT11A                                     |          |                                   |     |     | 1   | mA   |
| Emitter Cutoff Current                       | IEBO     | VCE= 1000V, VEB= 0                |     |     | 10  | μA   |
| Collector Emitter Saturation Voltage : BUT11 | VCE(sat) | VEB= 9V, IC=0                     |     |     | 1.5 | V    |
| : BUT11A                                     |          | IC=3A, IB=0.6A                    |     |     | 1.5 | V    |
| Base- Emitter Saturation Voltage : BUT11     | VBE(sat) | IC=2.5A, IB=0.5A                  |     |     | 1.3 | V    |
| : BUT11A                                     |          |                                   |     |     | 1.3 | V    |
| Turn-On Time                                 | ton      | IC=3A, IB=0.6A                    |     |     | 1   | μS   |
| Storage Time                                 | tstg     | IC=2.5A, IB=0.5A                  |     |     | 4   | μS   |
| Fall Time                                    | tf       | VCC= 250V, IC=2.5A, IB1= IB2=0.5A |     |     | 0.8 | μS   |