

**TRIPLE DIFFUSED PLANER TYPE
ULTRA HIGH β TRANSISTOR
INDUSTRIAL USE POWER SUPPLY**

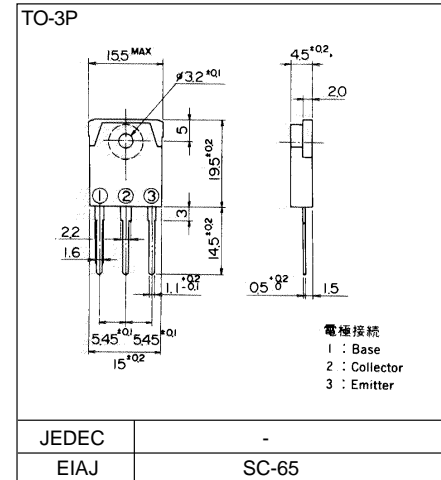
■ **Features**

- Ultra high β
- Excellent linearity in hFE
- Excellent safe operating area
- High reliability

■ **Applications**

- Color & B/W TV power supply
- Active power filter
- Industrial use power supply (Series regulator)
- General purpose power amplifiers

■ **Outline Drawings**



■ **Maximum ratings and characteristics**

- **Absolute maximum ratings (Tc=25°C unless otherwise specified)**

| Item | Symbol | Ratings | Unit |
|--------------------------------|--------|-------------|------|
| Collector-Base voltage | VCBO | 200 | V |
| Collector-Emitter voltage | VCEO | 180 | V |
| Emitter-Base voltage | VEBO | 6 | V |
| Collector current | IC | 5 | A |
| Base current | IB | 0.5 | A |
| Collector power dissipation | PC | 80 | W |
| Operating junction temperature | Tj | +150 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

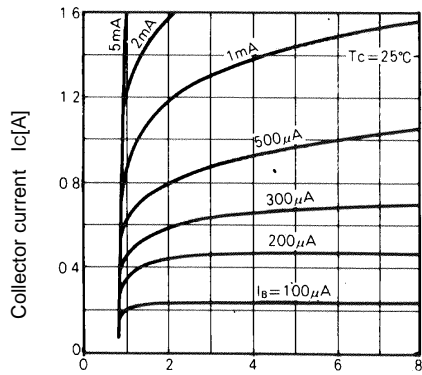
- **Electrical characteristics (Tc =25°C unless otherwise specified)**

| Item | Symbol | Test Conditions | Min. | Typ. | Max. | Units |
|--------------------------------------|----------|----------------------|------|------|------|-------|
| Collector-Base voltage | VCBO | ICBO = 1mA | 200 | | | V |
| Collector-Emitter voltage | VCEO | ICEO = 10mA | 180 | | | V |
| Emitter-Base voltage | VEBO | IEBO = 1mA | 6 | | | V |
| Collector-Base leakage current | ICBO | VCBO = 200V | | | 1.0 | mA |
| Emitter-Base leakage current | IEBO | VEBO = 6V | | | 1.0 | mA |
| D.C. current gain | hFE | IC = 1A, VCE = 4V | 700 | | | |
| Collector-Emitter saturation voltage | VCE(Sat) | IC = 1.5A, IB = 50mA | | | 1.5 | V |
| Base-Emitter saturation voltage | VBE(Sat) | | | | 2.0 | V |

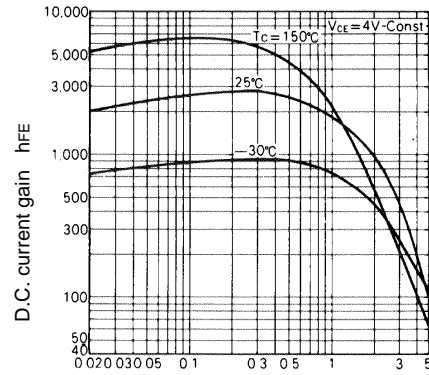
- **Thermal characteristics**

| Item | Symbol | Test Conditions | Min. | Typ. | Max. | Units |
|--------------------|----------|------------------|------|------|------|-------|
| Thermal resistance | Rth(j-c) | Junction to case | | | 1.55 | °C/W |

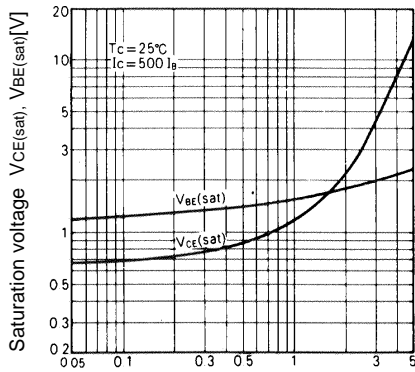
Characteristics



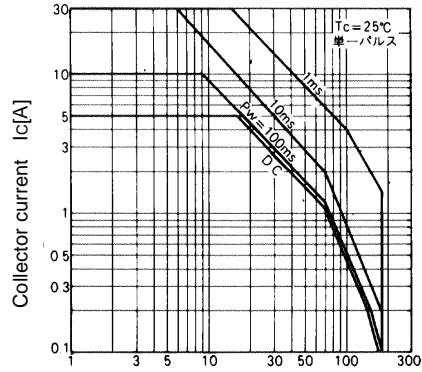
Collector Output Characteristics



DC Current Gain



Base and Collector Saturation Voltage



Safe Operating Area