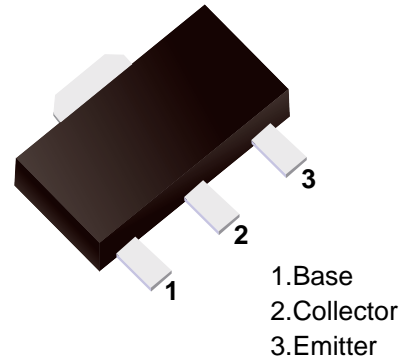


■ NPN Transistors



■ Simplified outline(SOT-89)

■ Features

- Small Flat Package
- High Transition Frequency
- High Voltage
- Complementary to 2SA1201

■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---|------------------|------------|------|
| Collector - Base Voltage | V _{CB0} | 120 | V |
| Collector - Emitter Voltage | V _{CE0} | 120 | |
| Emitter - Base Voltage | V _{EB0} | 5 | |
| Collector Current - Continuous | I _c | 800 | mA |
| Base Current | I _B | 160 | |
| Collector Power Dissipation | P _c | 500 | mW |
| Thermal Resistance From Junction To Ambient | R _{θJA} | 250 | °C/W |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature Range | T _{stg} | -55 to 150 | |

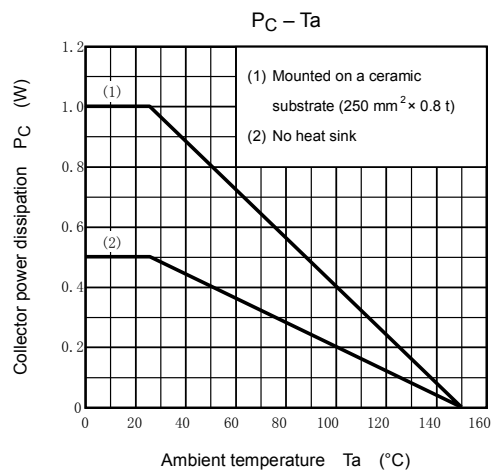
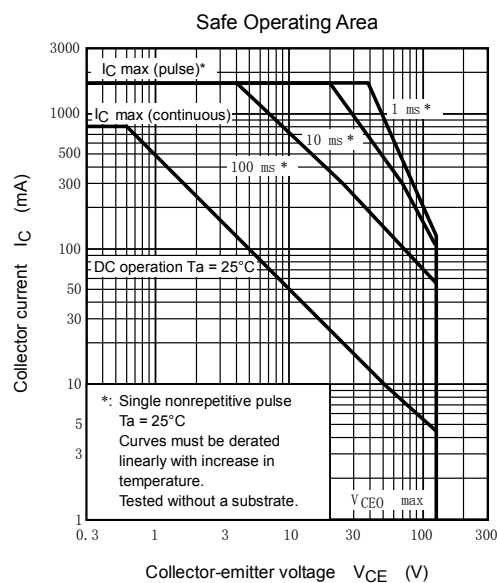
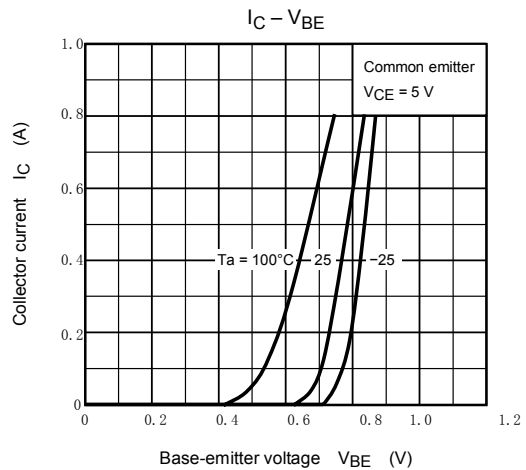
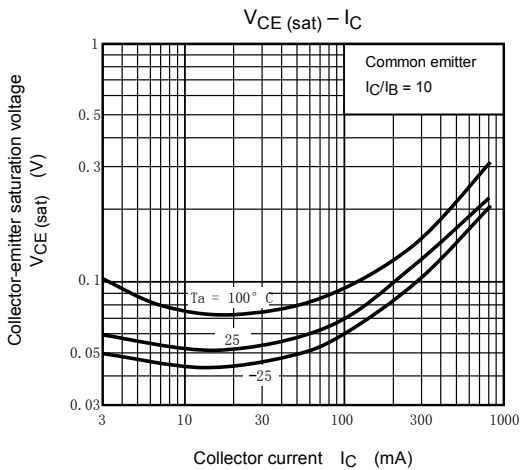
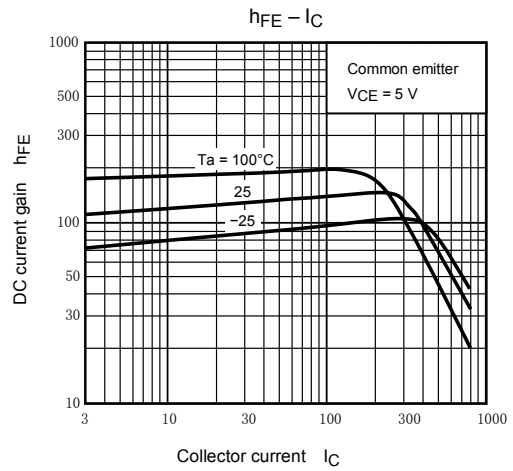
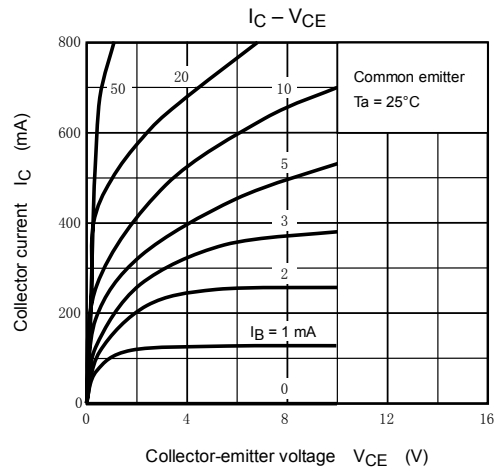
■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|-----|-----|-----|------|
| Collector- base breakdown voltage | V _{CB0} | I _c = 100u A, I _E = 0 | 120 | | | V |
| Collector- emitter breakdown voltage | V _{CE0} | I _c = 10mA, I _B = 0 | 120 | | | |
| Emitter - base breakdown voltage | V _{EB0} | I _E = 100uA, I _c = 0 | 5 | | | |
| Collector-base cut-off current | I _{CB0} | V _{CB} = 120V, I _E = 0 | | | 0.1 | uA |
| Emitter cut-off current | I _{EB0} | V _{EB} = 5V, I _c =0 | | | 0.1 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _c =500 mA, I _B =50mA | | | 1 | V |
| Base - emitter saturation voltage | V _{BE(sat)} | I _c =500 mA, I _B =50mA | | | 1.2 | |
| Base - emitter voltage | V _{BE} | V _{CE} = 5V, I _c = 0.5A | | | 1 | |
| DC current gain | h _{FE} | V _{CE} = 5V, I _c = 100mA | 80 | | 240 | |
| Collector output capacitance | C _{ob} | V _{CB} = 10V, I _E = 0, f=1MHz | | | 30 | pF |
| Transition frequency | f _t | V _{CE} = 5V, I _c = 100mA | | 120 | | MHz |

■ Classification of h_{FE}

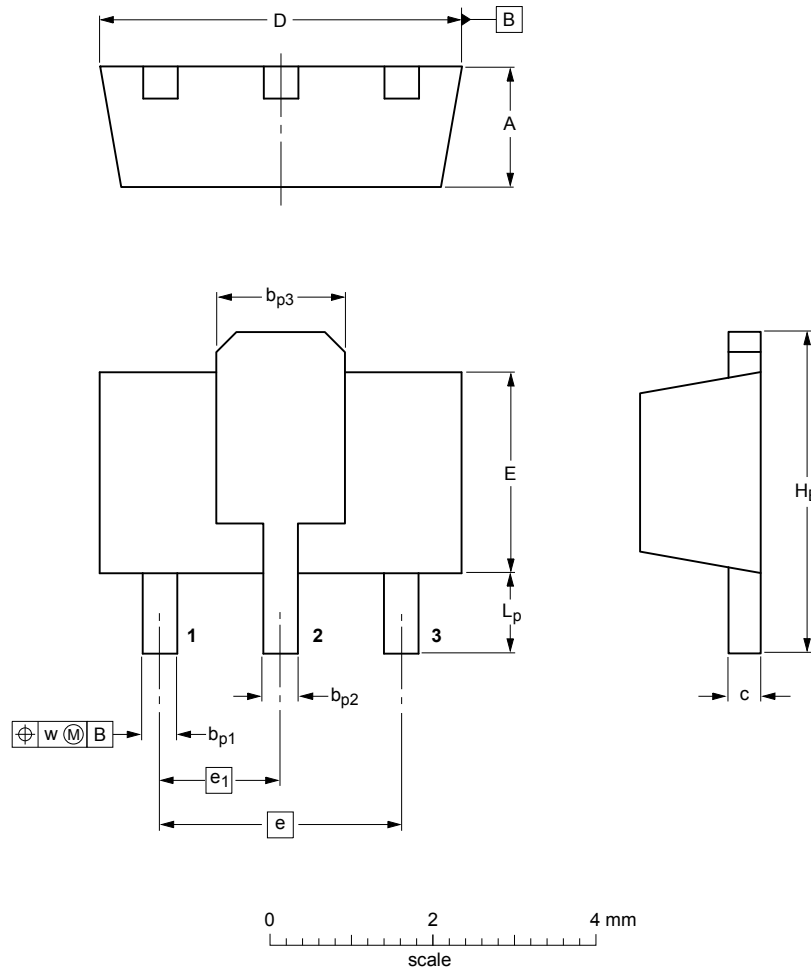
| Type | 2SC2881-O | 2SC2881-Y |
|---------|-----------|-----------|
| Range | 80-160 | 120-240 |
| Marking | CO* | CY* |

■ Typical Characteristics



Package Outline

SOT-89



DIMENSIONS (mm are the original dimensions)

| UNIT | A | b _{p1} | b _{p2} | b _{p3} | c | D | E | e | e ₁ | H _E | L _p | w |
|------|------------|-----------------|-----------------|-----------------|--------------|------------|------------|-----|----------------|----------------|----------------|------|
| mm | 1.6 1.4 | 0.48 0.35 | 0.53 0.40 | 1.8 1.4 | 0.44 0.23 | 4.6 4.4 | 2.6 2.4 | 3.0 | 1.5 | 4.25 3.75 | 1.2 0.8 | 0.13 |

Summary of Packing Options

| Package | Package Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| SOT-89 | Tape/Reel, 7" reel | 1000 | EIA-481-1 |