

Silicon NPN Epitaxial Planar Transistor (Complement to type 2SA1215)

Application : Audio and General Purpose

## ■ Absolute maximum ratings (Ta=25°C)

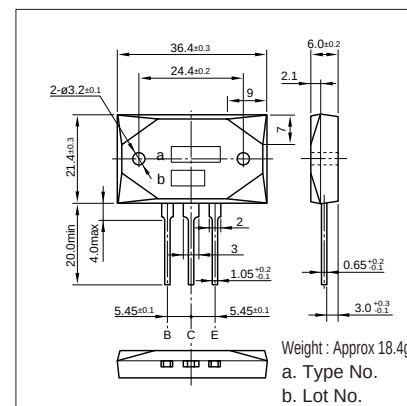
| Symbol | 2SC2921      | Unit |
|--------|--------------|------|
| VCBO   | 160          | V    |
| VCEO   | 160          | V    |
| VEBO   | 5            | V    |
| IC     | 15           | A    |
| IB     | 4            | A    |
| Pc     | 150(Tc=25°C) | W    |
| TJ     | 150          | °C   |
| Tstg   | -55 to +150  | °C   |

## ■ Electrical Characteristics (Ta=25°C)

| Symbol   | Conditions      | 2SC2921 | Unit |
|----------|-----------------|---------|------|
| ICBO     | VCB=160V        | 100max  | μA   |
| IEBO     | VEB=5V          | 100max  | μA   |
| V(BR)CEO | IC=25mA         | 160min  | V    |
| hFE      | VCE=4V, IC=5A   | 50min*  |      |
| VCE(sat) | IC=5A, IB=0.5A  | 2.0max  | V    |
| fr       | VCE=12V, IE=-2A | 60typ   | MHz  |
| COB      | VCB=10V, f=1MHz | 200typ  | pF   |

\*hFE Rank  $\bar{O}$ (50 to 100), P(70 to 140), Y(90 to 180)

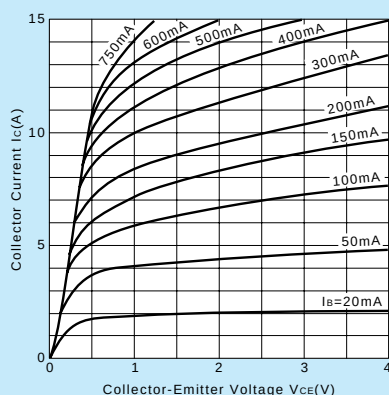
## External Dimensions MT-200



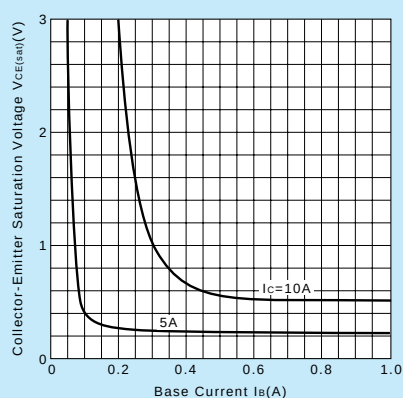
## ■ Typical Switching Characteristics (Common Emitter)

| VCC (V) | RL (Ω) | IC (A) | VB2 (V) | IB1 (mA) | IB2 (mA) | ton (μs) | tstg (μs) | tf (μs) |
|---------|--------|--------|---------|----------|----------|----------|-----------|---------|
| 60      | 12     | 5      | -5      | 500      | -500     | 0.2typ   | 1.5typ    | 0.35typ |

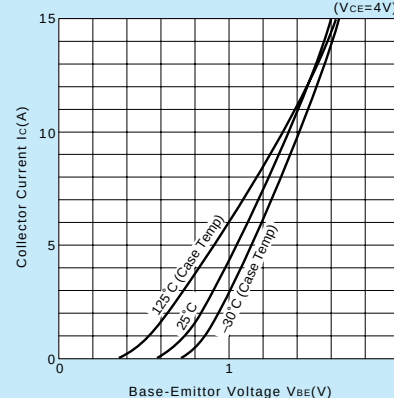
IC-VCE Characteristics (Typical)



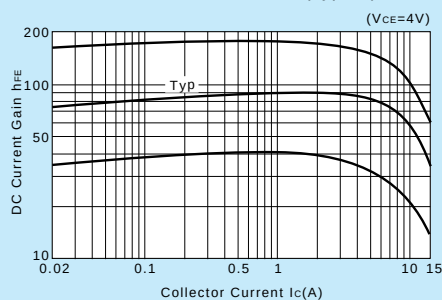
VCE(sat)-IB Characteristics (Typical)



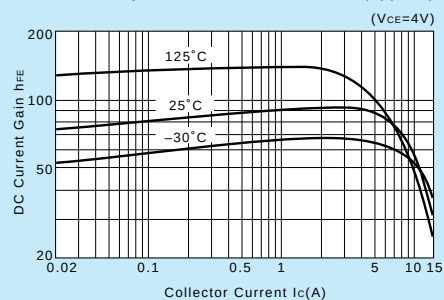
IC-VBE Temperature Characteristics (Typical)



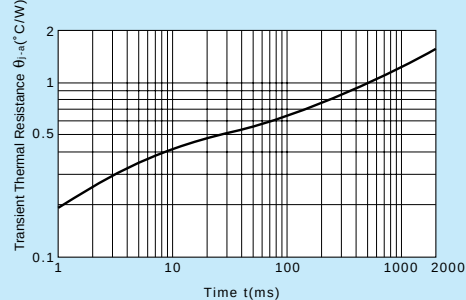
hFE-IC Characteristics (Typical)



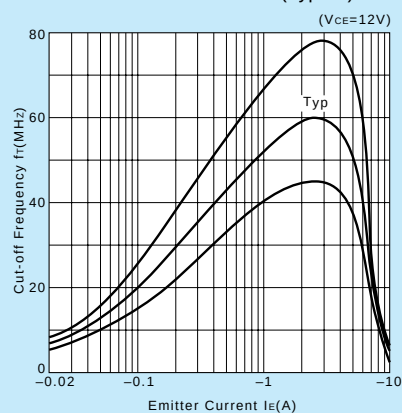
hFE-IC Temperature Characteristics (Typical)



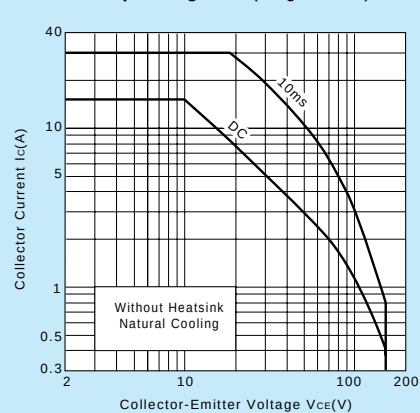
θj-a-t Characteristics



fr-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

