

2SC1985 2SC1986

Silicon NPN Triple Diffused Mesa

☆ Complement to types 2SA770 and 2SA771

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| Application Example : General and Industrial Purpose | ● Outline Drawing 1.....MT-25(TO220) ● Test Circuit.....③ |
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Absolute Maximum Ratings

| Symbol | 2SC1985 | 2SC1986 | Unit |
|------------------|----------------------------|---------|------|
| V _{CB0} | 80 | 100 | V |
| V _{CEO} | 60 | 80 | V |
| V _{EB0} | 6 | | V |
| I _C | 6 | | A |
| I _B | 3 | | A |
| P _C | 40 (T _{FL} =25°C) | | W |
| T _J | 150 | | °C |
| T _{stg} | -55~+150 | | °C |

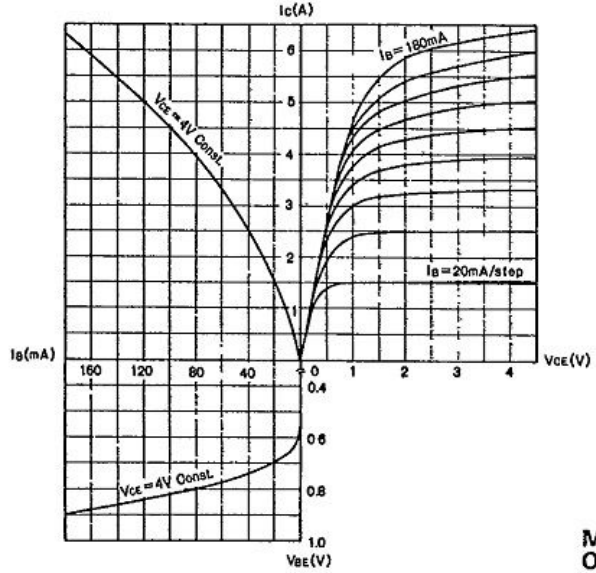
Electrical Characteristics

| Symbol | Conditions | 2SC1985 | 2SC1986 | Unit |
|----------------------|---|---------|---------|------|
| I _{CB0} | V _{CB} = | 1.0max | 1.0max | mA |
| | | 80 | 100 | V |
| I _{EB0} | V _{EB} =6V | 1.0max | | mA |
| V _{(BR)CEO} | I _C =25mA | 60min | 80min | V |
| h _{FE} | V _{CE} =4V, I _C =1A | 40min | | |
| V _{CE(sat)} | I _C =3A, I _B =0.3A | 1.0max | | V |
| f _T | V _{CE} =12V, I _E =-0.5A | 10typ | | MHz |

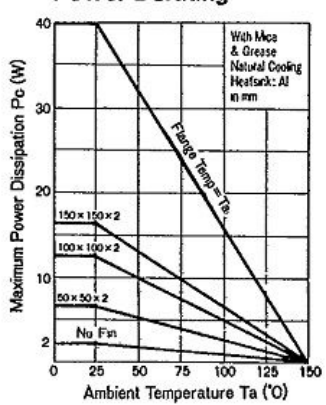
Typical Switching Characteristics (Emitter Common)

| V _{CC} (V) | R _L (Ω) | I _C (A) | V _{B2} (V) | I _{B1} (mA) | I _{B2} (mA) | t _r (μs) | t _{stg} (μs) | t _f (μs) |
|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|---------------------|-----------------------|---------------------|
| 9 | 3 | 3 | -5 | 300 | -300 | 1.1typ | 1.8typ | 0.55typ |

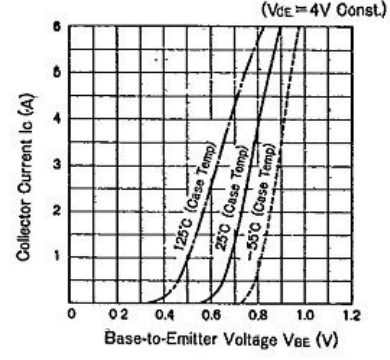
Common Emitter Characteristics (Typical Value)



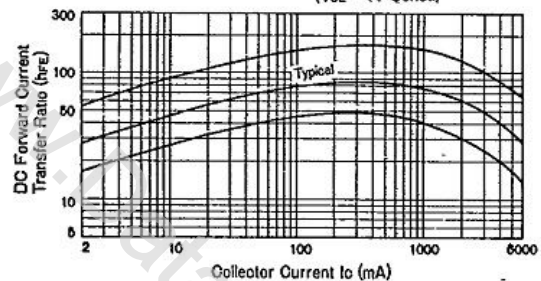
Power Derating



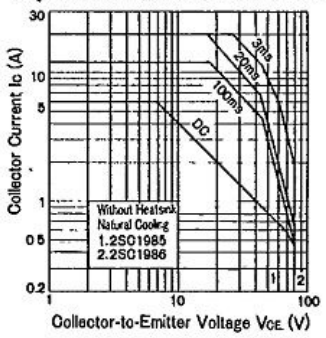
Temperature Characteristics



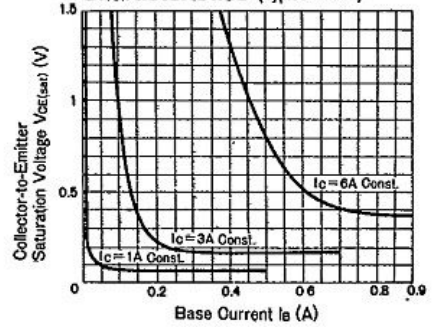
DC Current Gain Characteristics (V_{CE} = 4V Const.)



Maximum Areas For Safe Operation (ASO) (Single Pulse)



Collector-to-Emitter Saturation Characteristics (Typical Value)

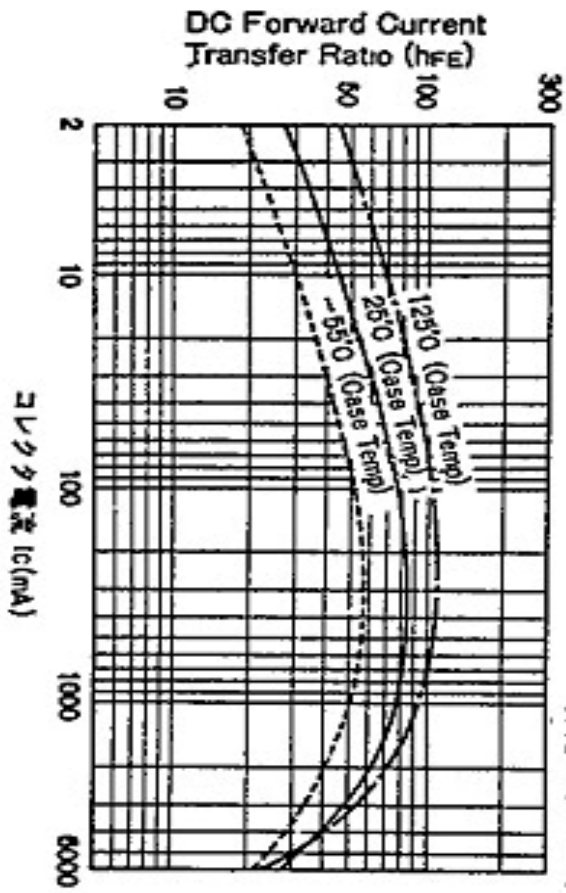


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DC Current Gain Temperature Characteristics

($V_{CE} = 4V$ Const.)



Transient Thermal Resistance Characteristics

