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|--------------|---------|---|
| SANYO | No.2970 | 2SC4272 |
| | | NPN Epitaxial Planar Silicon Transistor |

27MHz CB Transceiver Driver Applications

Features

- Small size making it easy to provide high-density, small-sized hybrid ICs.

Absolute Maximum Ratings at Ta = 25°C

| | | | unit |
|------------------------------|---|-------------|------|
| Collector to Base Voltage | V _{CB0} | 75 | V |
| Collector to Emitter Voltage | V _{CER} R _{BE} = 150Ω | 75 | V |
| Collector to Emitter Voltage | V _{CEO} | 45 | V |
| Emitter to Base Voltage | V _{EBO} | 5 | V |
| Collector Current | I _C | 1.0 | A |
| Collector Current(Pulse) | I _{CP} | 1.5 | A |
| Collector Dissipation | P _C Mounted on ceramic board(250mm ² × 0.8mm) | 1.3 | W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -55 to +150 | °C |

Electrical Characteristics at Ta = 25°C

| | | | min | typ | max | unit |
|--------------------------|--|-----|-----|-----|------|------|
| Collector Cutoff Current | I _{CBO} V _{CB} = 40V, I _E = 0 | | | | 1.0 | μA |
| Emitter Cutoff Current | I _{EBO} V _{EB} = 4V, I _C = 0 | | | | 1.0 | μA |
| DC Current Gain | h _{FE} * V _{CE} = 5V, I _C = 500mA | 60* | | | 320* | |
| Gain-Bandwidth Product | f _T V _{CE} = 10V, I _C = 50mA | 180 | 250 | | | MHz |
| Output Capacitance | c _{ob} V _{CB} = 10V, f = 1MHz | | | 15 | | pF |
| Output Power | P _o V _{CC} = 12V, f = 27MHz Pin = 35mW | 1.0 | 1.8 | | | W |
| Collector Efficiency | η _c See specified Test Circuit. | 60 | | | | % |
| C-E Saturation Voltage | V _{CE(sat)} I _C = 500mA, I _B = 50mA | | 0.2 | 0.6 | | V |
| B-E Saturation Voltage | V _{BE(sat)} I _C = 500mA, I _B = 50mA | | 0.9 | 1.2 | | V |
| C-B Breakdown Voltage | V _{(BR)CBO} I _C = 10μA, I _E = 0 | 75 | | | | V |
| C-E Breakdown Voltage | V _{(BR)CER} I _C = 1mA, R _{BE} = 150Ω | 75 | | | | V |
| C-E Breakdown Voltage | V _{(BR)CEO} I _C = 1mA, R _{BE} = ∞ | 45 | | | | V |
| E-B Breakdown Voltage | V _{(BR)EBO} I _E = 10μA, I _C = 0 | 5 | | | | V |

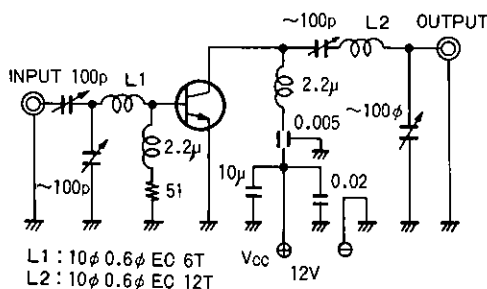
* : The 2SC4272 is classified by 500mA h_{FE} as follows :

| | | | | | | | | |
|----|---|-----|-----|---|-----|-----|---|-----|
| 60 | D | 120 | 100 | E | 200 | 160 | F | 320 |
|----|---|-----|-----|---|-----|-----|---|-----|

Marking : CH

h_{FE} rank : D,E,F

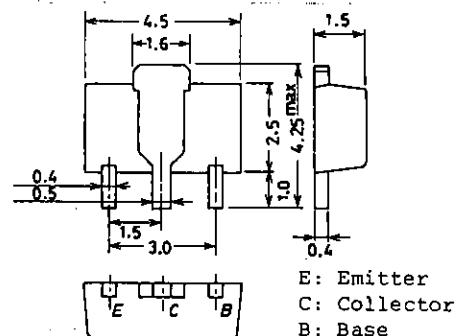
Collector Efficiency Test Circuit



L1 : 10φ 0.6φ EC 6T
L2 : 10φ 0.6φ EC 12T

Unit (Resistance : Ω, Capacitance : F)

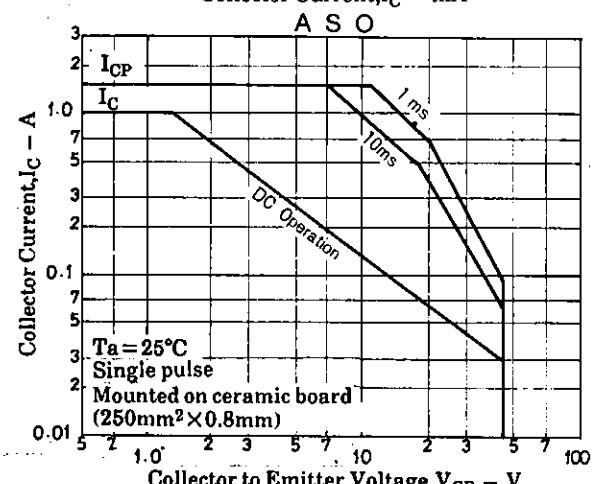
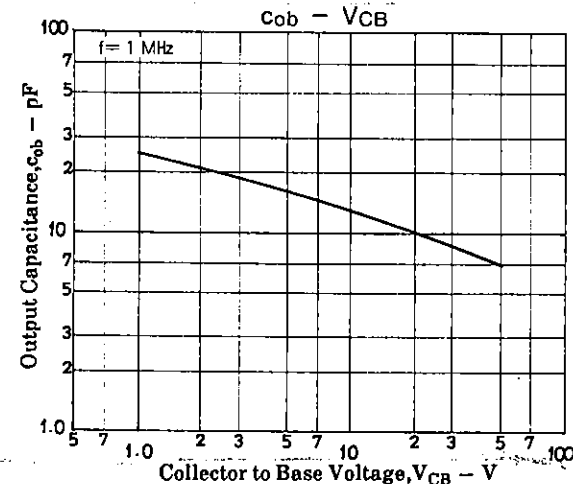
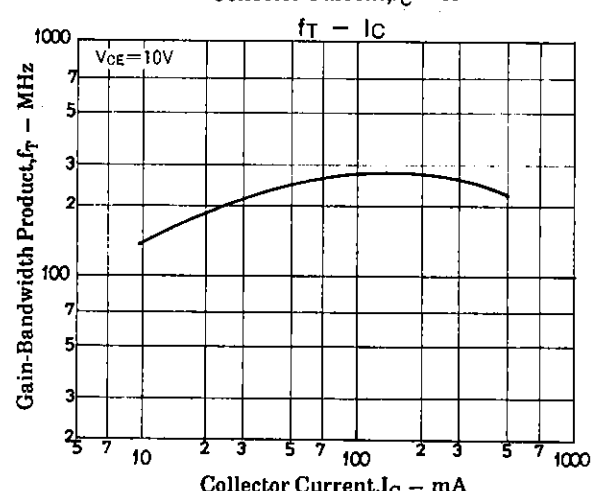
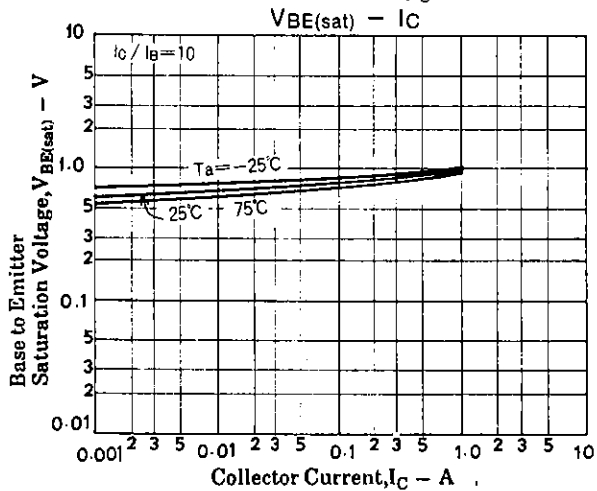
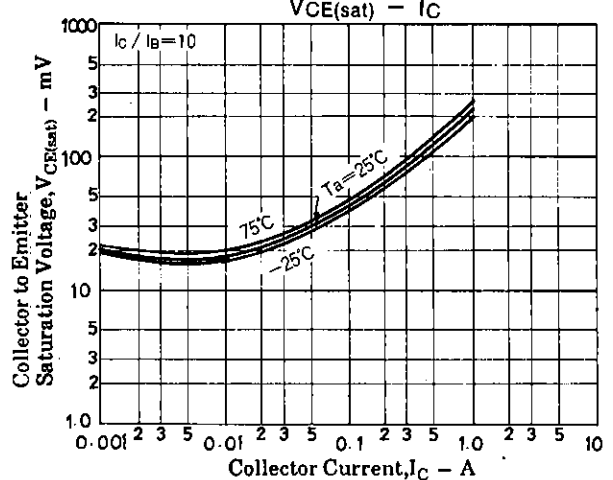
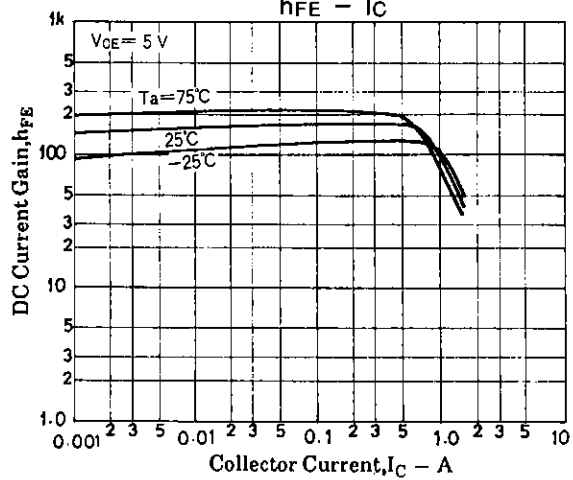
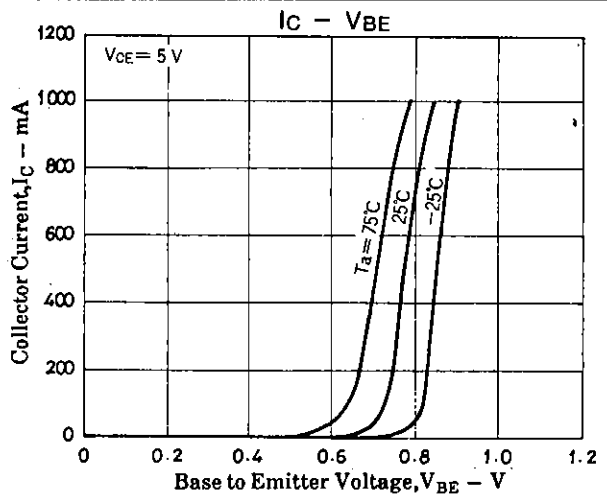
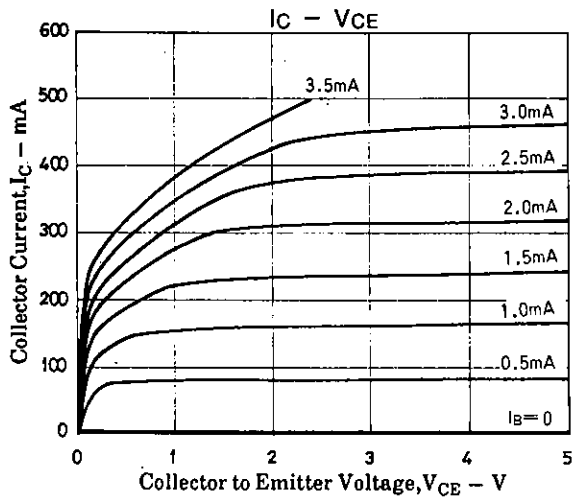
Package Dimensions 2038
(unit : mm)

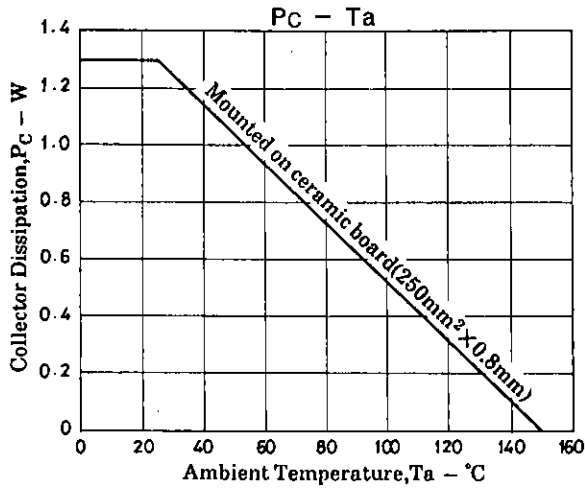


E: Emitter
C: Collector
B: Base

SANYO: PCP
(Bottom View)

2SC4272





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