

<b>SANYO</b>	No.2970	<b>2SC4272</b>
	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 <sub>CB0</sub>	75	V
Collector to Emitter Voltage	V <sub>CER</sub> R <sub>BE</sub> = 150Ω	75	V
Collector to Emitter Voltage	V <sub>CEO</sub>	45	V
Emitter to Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	1.0	A
Collector Current(Pulse)	I <sub>CP</sub>	1.5	A
Collector Dissipation	P <sub>C</sub> Mounted on ceramic board(250mm <sup>2</sup> × 0.8mm)	1.3	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

**Electrical Characteristics at Ta = 25°C**

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

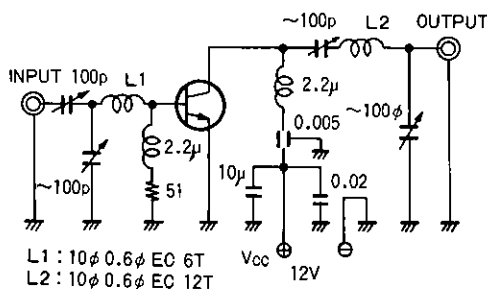
\* : The 2SC4272 is classified by 500mA h<sub>FE</sub> as follows :

60	D	120	100	E	200	160	F	320
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Marking : CH

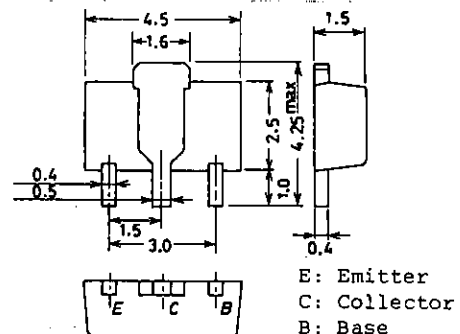
h<sub>FE</sub> rank : D, E, F

**Collector Efficiency Test Circuit**



Unit (Resistance : Ω, Capacitance : F)

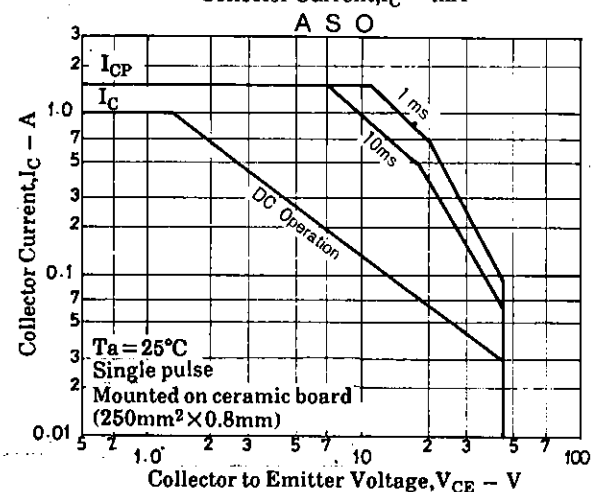
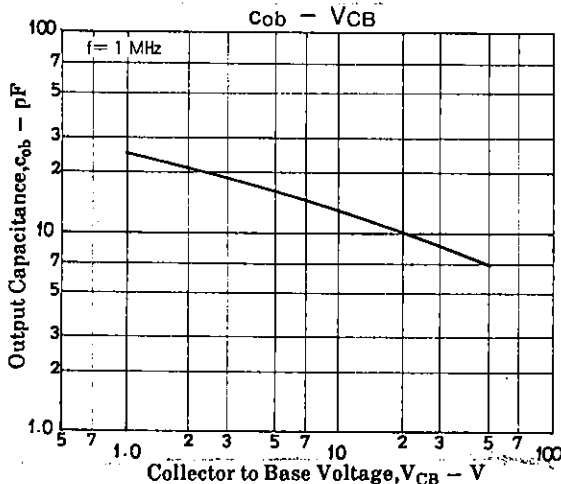
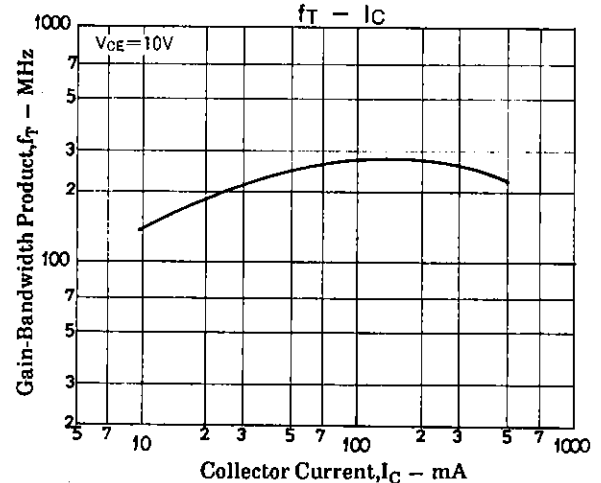
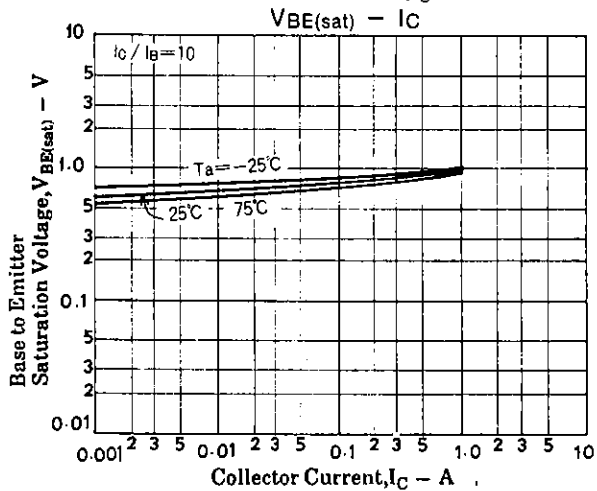
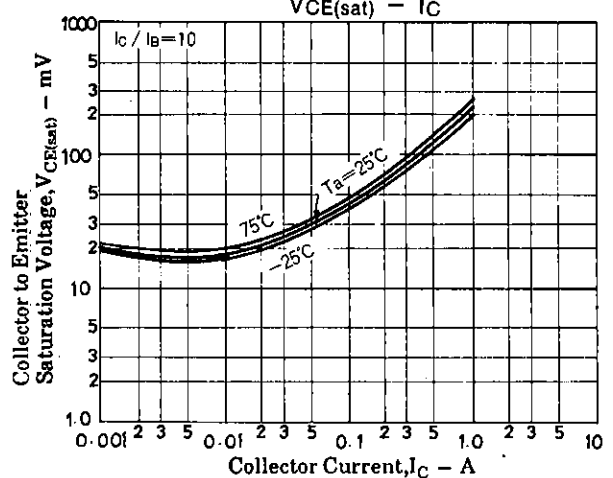
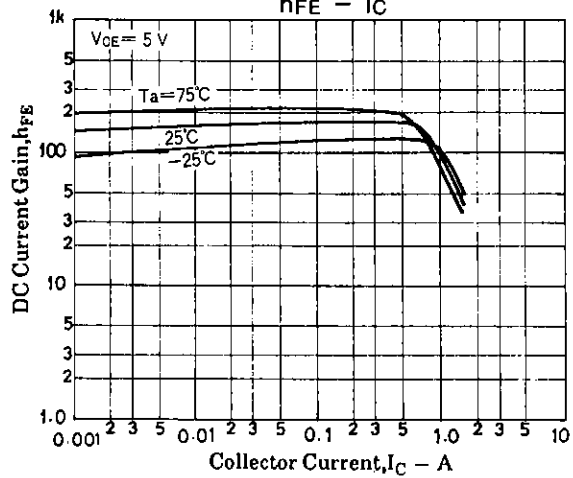
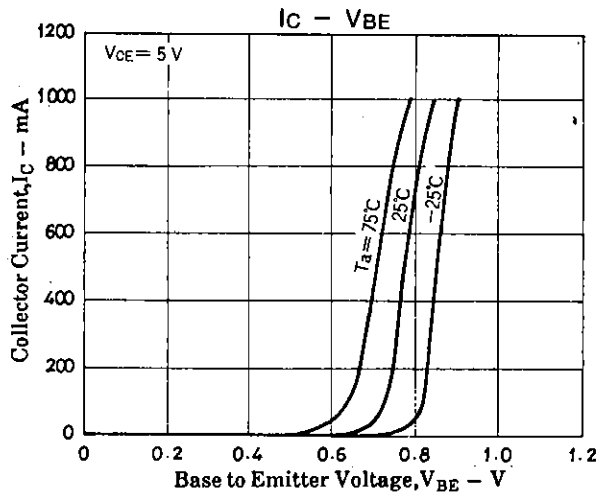
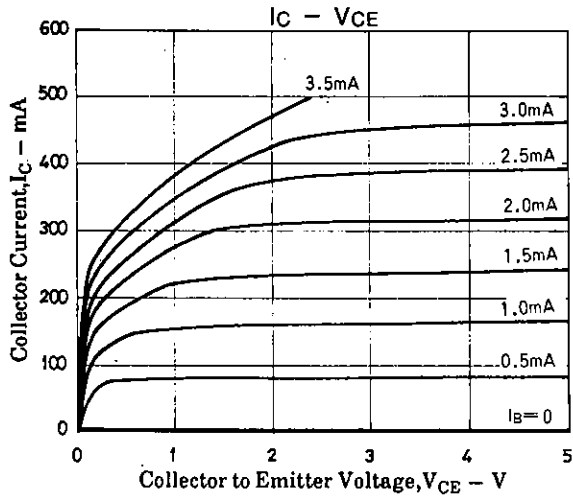
**Package Dimensions 2038**  
(unit : mm)

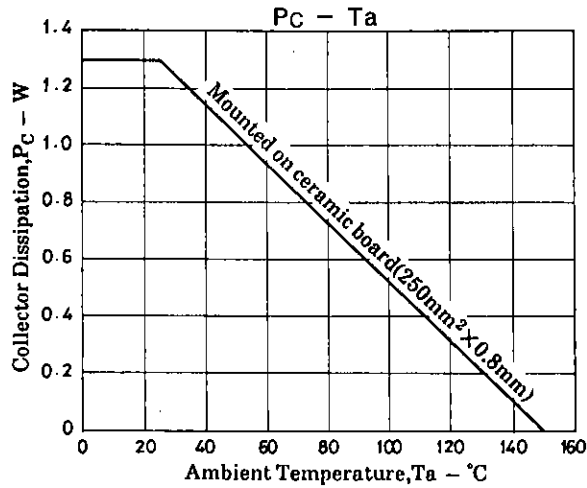


SANYO: PCP

(Bottom View)

2SC4272





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