



No.3022

**2SA1701/2SC4481**

PNP/NPN Epitaxial Planar Silicon Transistors

Low-Frequency  
General-Purpose Amp Applications

**Applications**

- AF power amp, medium-speed switching, small-sized motor driver applications.

**Features**

- Large current capacity.
- Low collector-to-emitter saturation voltage.

( ) : 2SA1701

**Absolute Maximum Ratings at Ta = 25°C**

			unit
Collector to Base Voltage	V <sub>CB0</sub>	(- )15	V
Collector to Emitter Voltage	V <sub>CEO</sub>	(- )15	V
Emitter to Base Voltage	V <sub>EBO</sub>	(- )5	V
Collector Current	I <sub>C</sub>	(- )1.5	A
Collector Current(Pulse)	I <sub>CP</sub>	(- )3	A
Collector Dissipation	P <sub>C</sub>	0.9	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**

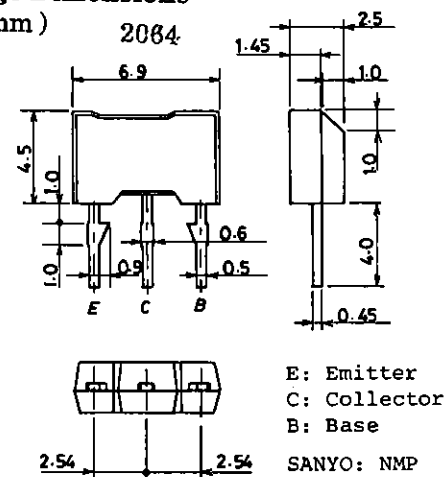
		min	typ	max	unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> = (-)12V, I <sub>E</sub> = 0		(- )100	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = (-)4V, I <sub>C</sub> = 0		(- )100	nA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)50mA	140*	560*	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)1A	70		
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)50mA	(300)200		MHz
C-E Saturation Voltage	V <sub>CE(sat)</sub> (1)	I <sub>C</sub> = (-)5mA, I <sub>B</sub> = (-)0.5mA	(- )10	(- )25	mV
	V <sub>CE(sat)</sub> (2)	I <sub>C</sub> = (-)400mA, I <sub>B</sub> = (-)20mA	(- )100	(- )200	mV
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = (-)400mA, I <sub>B</sub> = (-)20mA	(- )0.9	(- )1.2	V
Output Capacitance	c <sub>ob</sub>	V <sub>CB</sub> = (-)10V, f = 1MHz	(15)10		pF
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = (-)10μA, I <sub>E</sub> = 0	(- )15		V
C-E Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = (-)1mA, R <sub>BE</sub> = ∞	(- )15		V
E-B Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = (-)10μA, I <sub>C</sub> = 0	(- )5		V

\* : The 2SA1701/2SC4481 are classified by 50mA h<sub>FE</sub> as follows :

140 S 280	200 T 400	280 U 560
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**Package Dimensions**

(unit: mm)



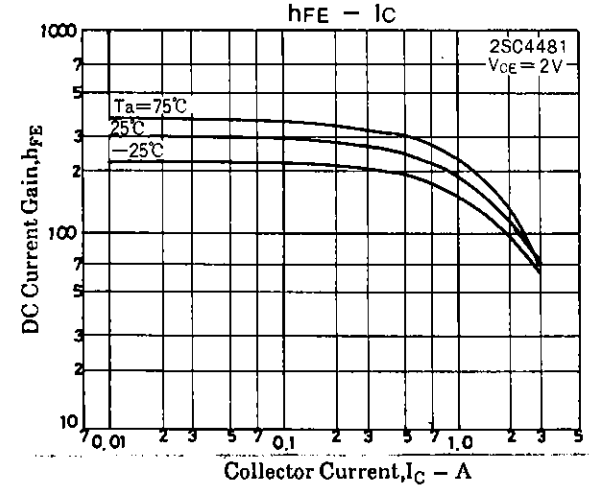
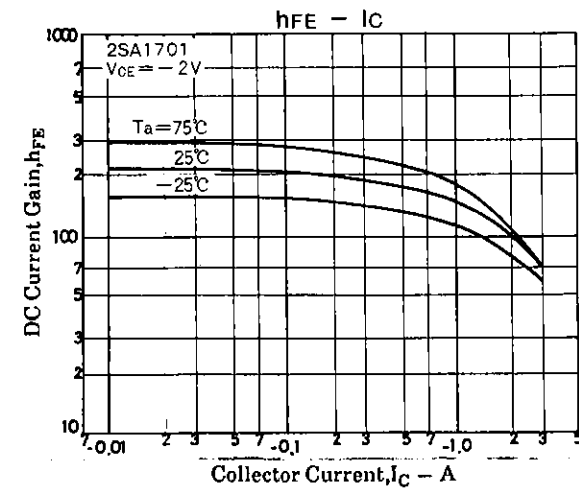
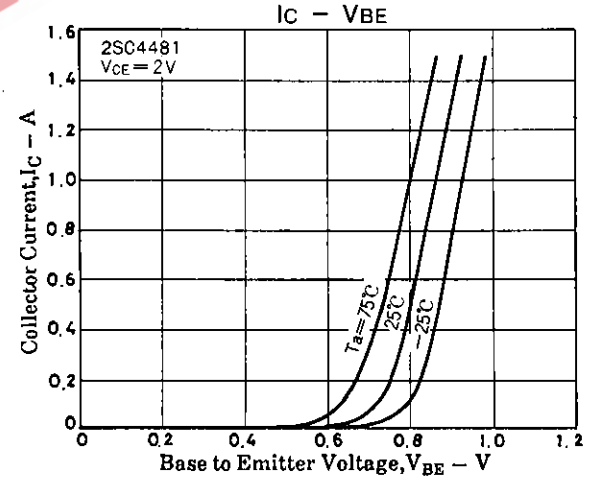
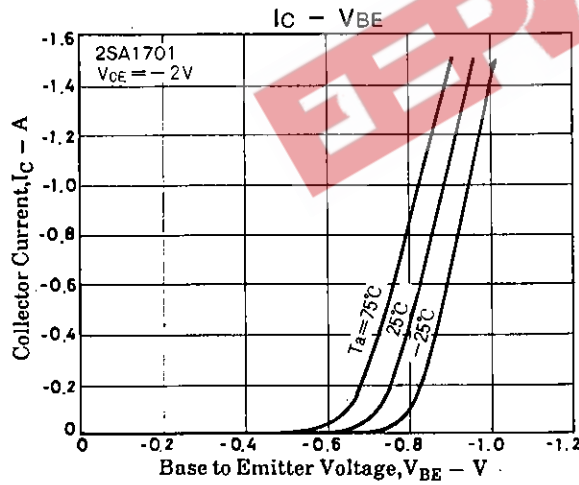
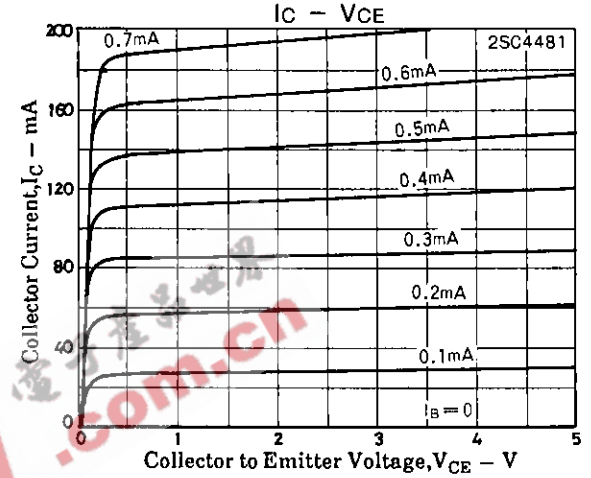
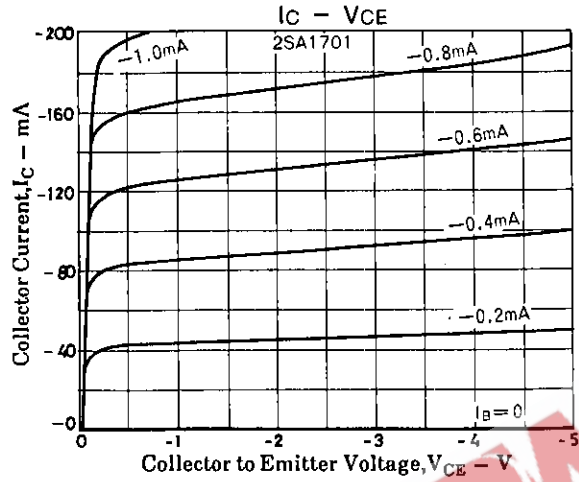
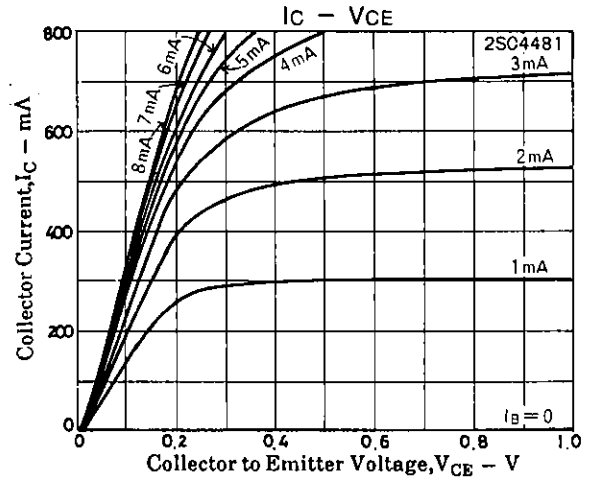
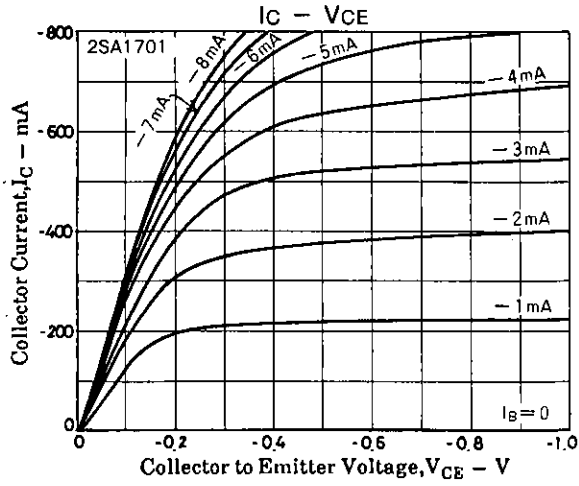
E: Emitter  
C: Collector  
B: Base

SANYO: NMP

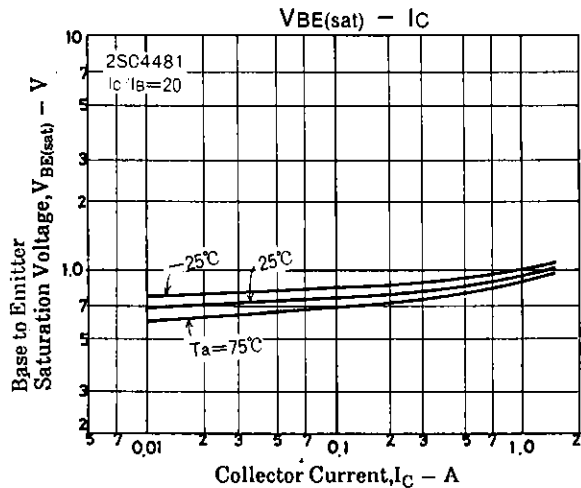
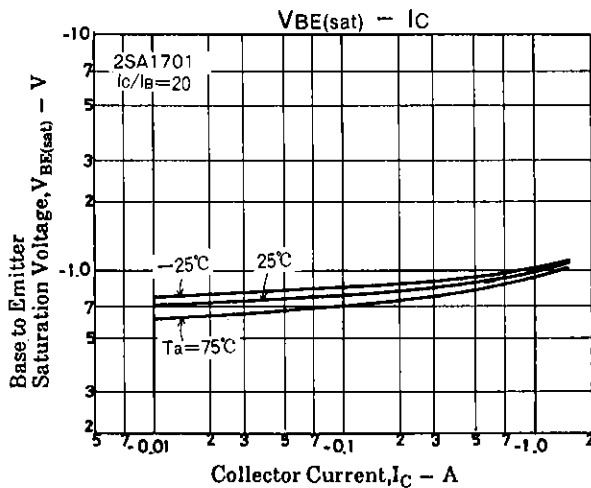
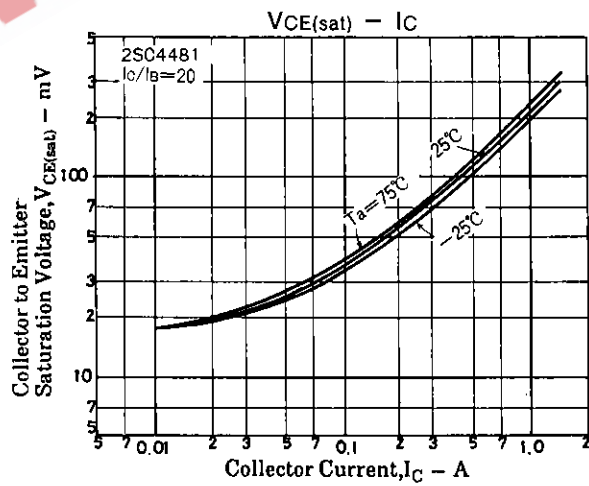
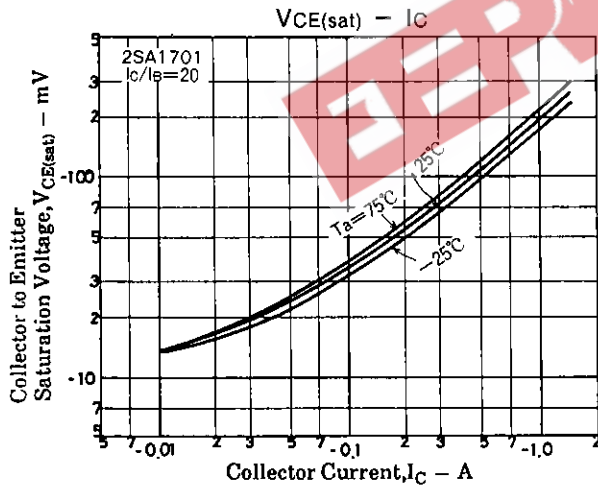
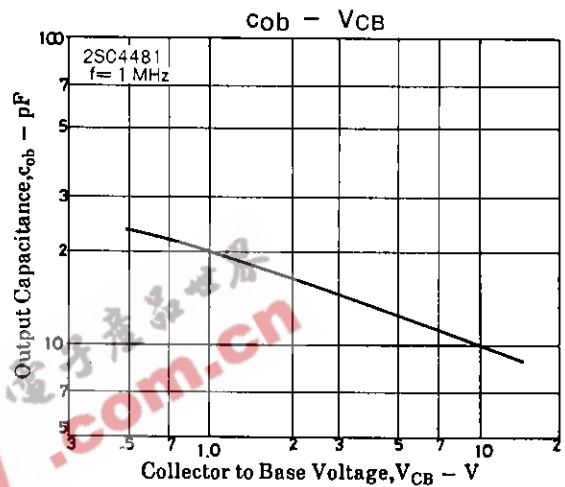
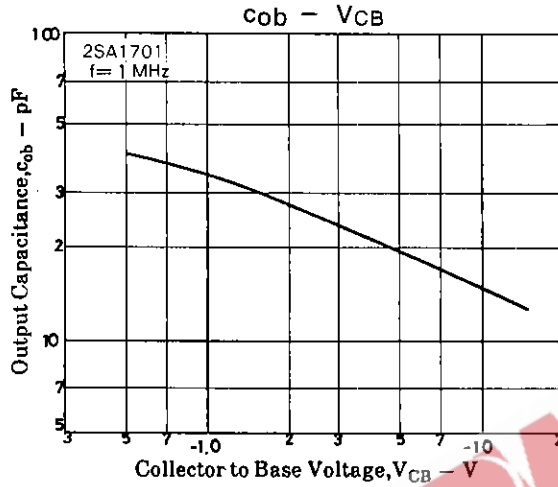
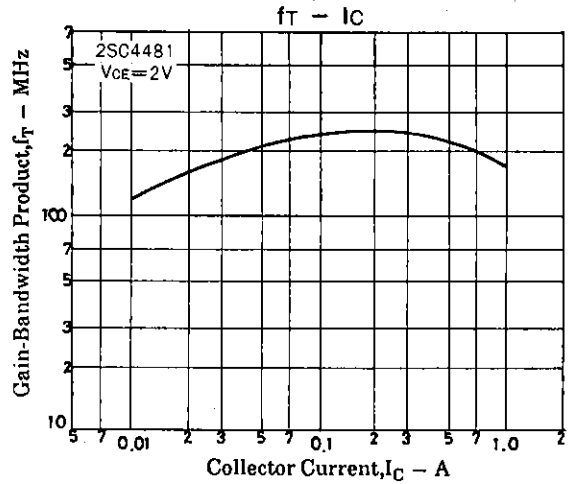
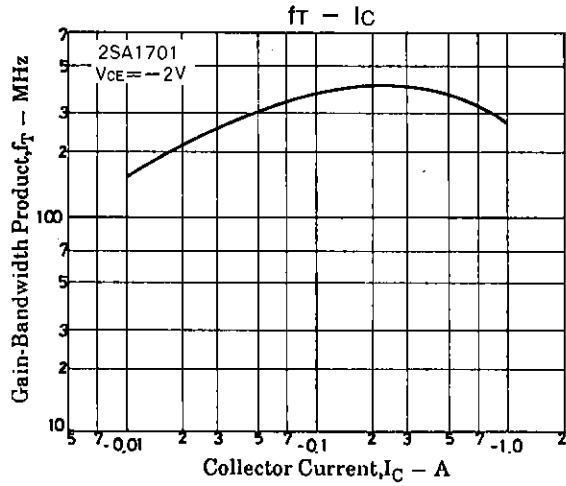
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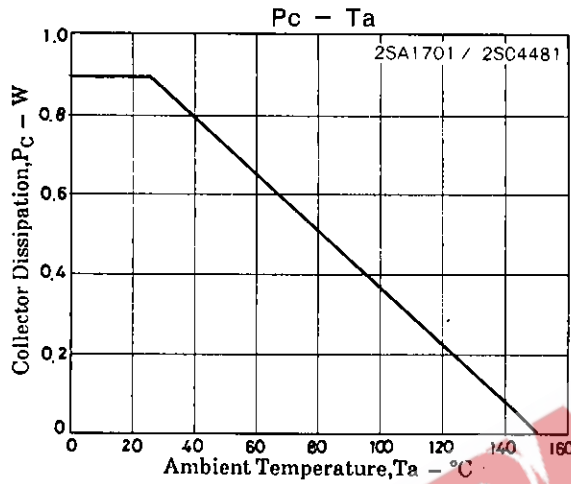
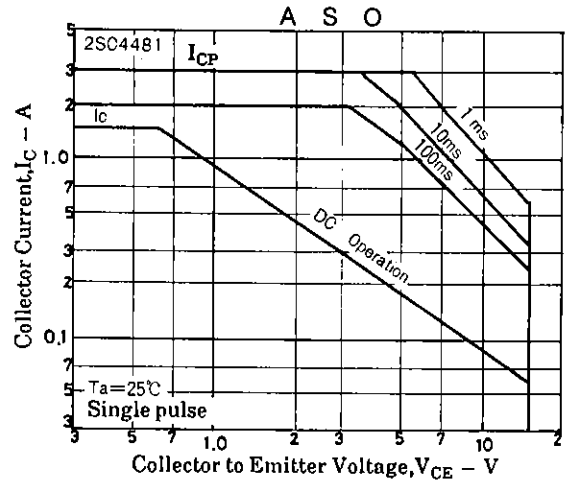
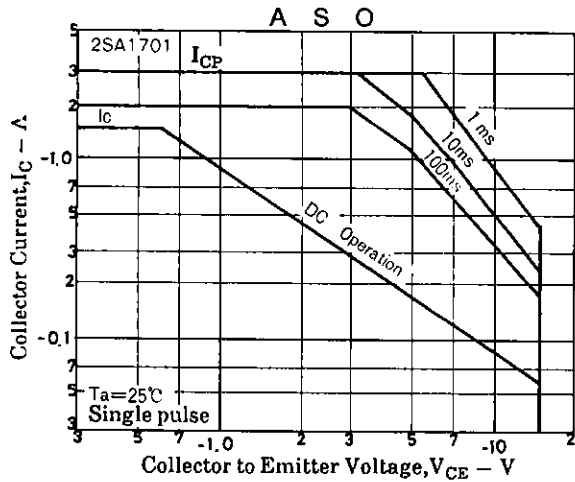
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