

<b>SANYO</b>	No.3025	<b>2SA1705/2SC4485</b>
		PNP/NPN Epitaxial Planar Silicon Transistors Low-Frequency Power Amp Applications

**Applications**

- Voltage regulators, relay drivers, lamp drivers.

**Features**

- Adoption of FBET process.
- Fast switching speed.

( ) : 2SA1705

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

			unit
Collector to Base Voltage	V <sub>CB0</sub>	(-)60	V
Collector to Emitter Voltage	V <sub>CEO</sub>	(-)50	V
Emitter to Base Voltage	V <sub>EBO</sub>	(-)5	V
Collector Current	I <sub>C</sub>	(-)1	A
Collector Current(Pulse)	I <sub>CP</sub>	(-)2	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**

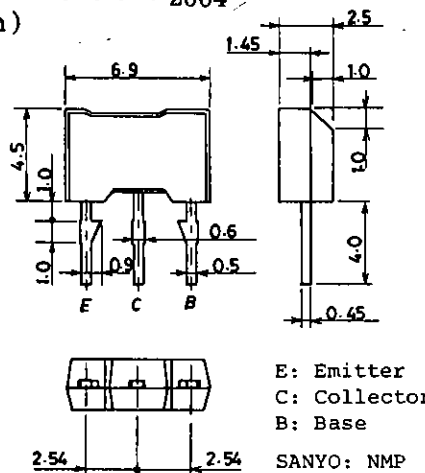
			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> = (-)50V, I <sub>E</sub> = 0			(-)100	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = (-)4V, I <sub>C</sub> = 0			(-)100	nA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)100mA	100*		400*	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)1A	30			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = (-)10V, I <sub>C</sub> = (-)50mA		150		MHz
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = (-)500mA, I <sub>B</sub> = (-)50mA	(-)180	120	(-)500	300 mV
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = (-)500mA, I <sub>B</sub> = (-)50mA	(-)0.9		(-)1.2	V
Output Capacitance	c <sub>ob</sub>	V <sub>CB</sub> = (-)10V, f = 1MHz		(12)8.5		pF

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\* : The 2SA1705/2SC4485 are classified by 100mA h<sub>FE</sub> as follows :

100 R 200	140 S 280	200 T 400
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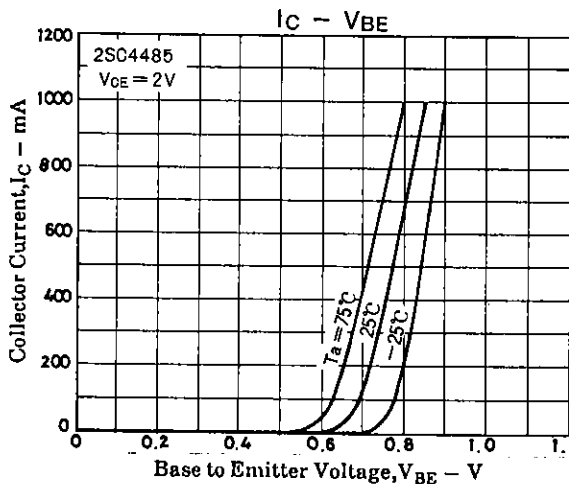
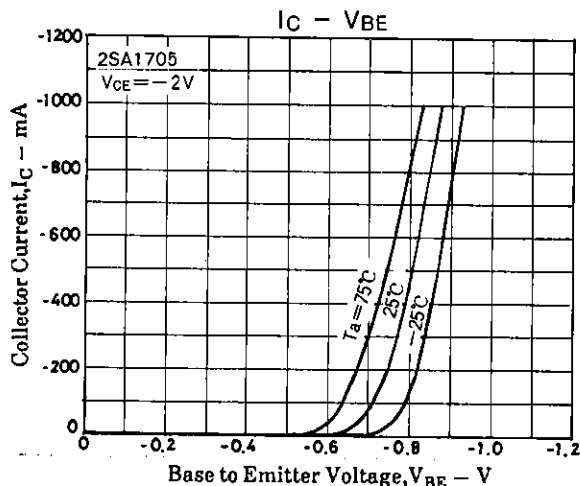
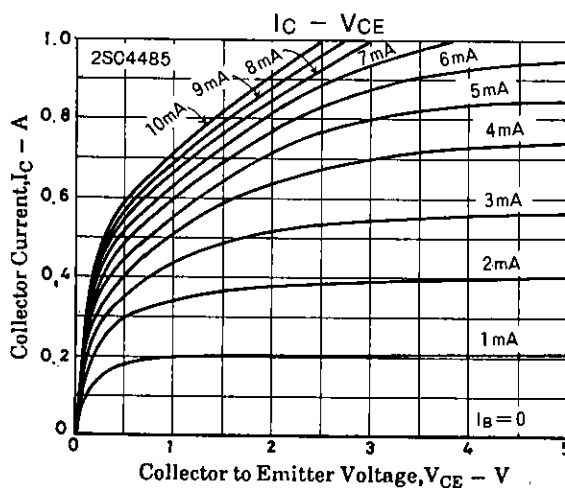
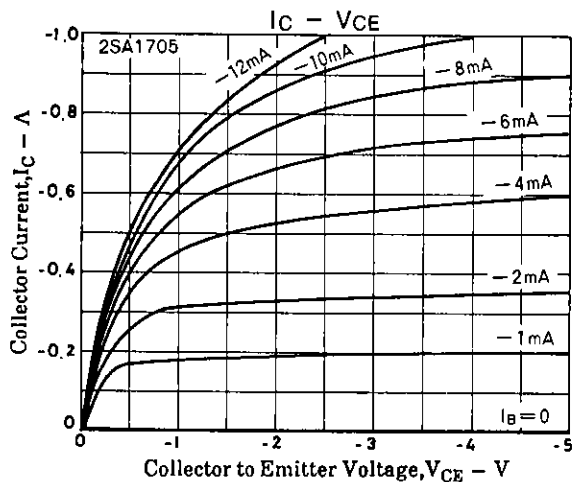
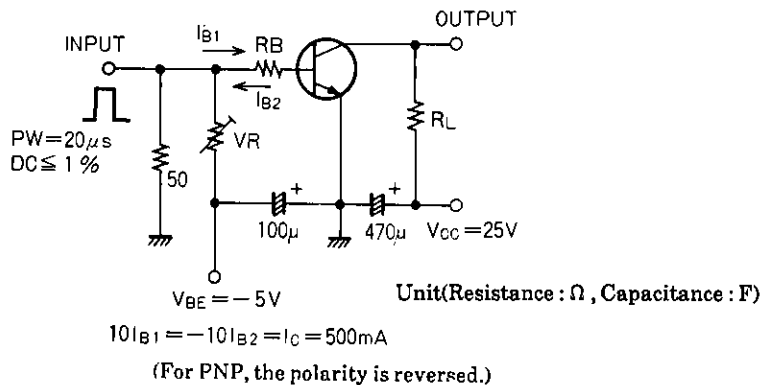
**Package Dimensions 2064**  
(unit: mm)



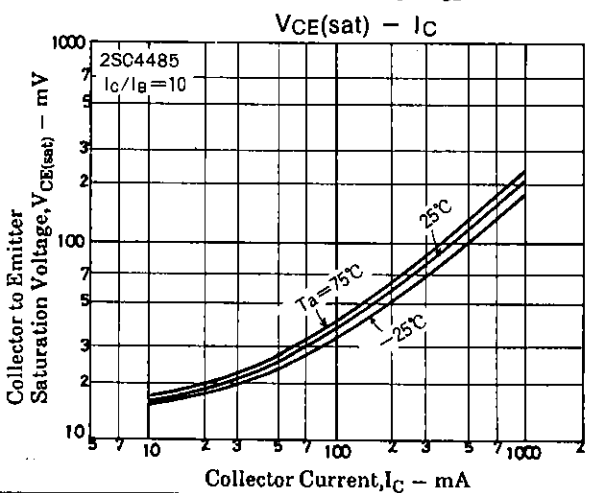
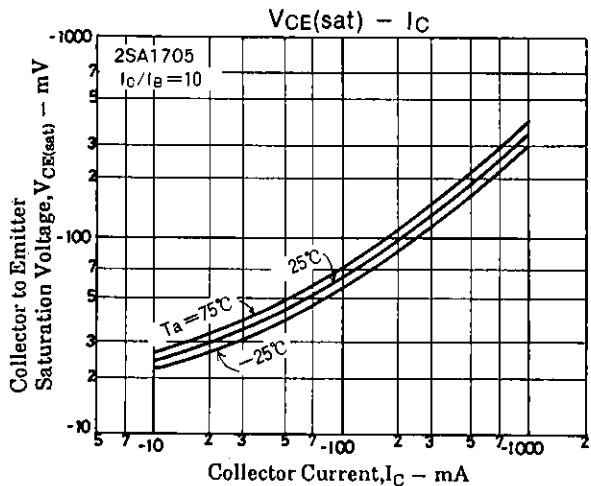
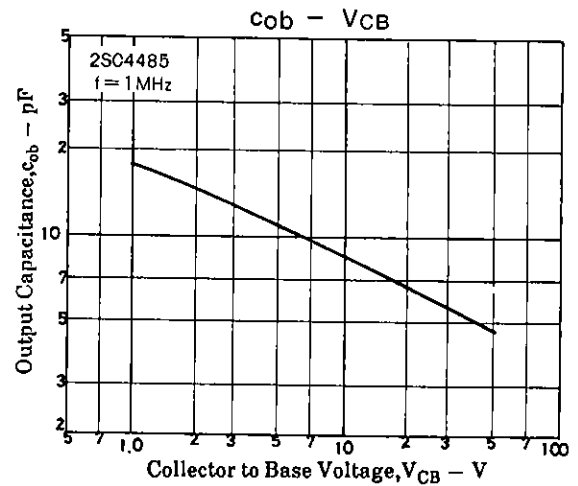
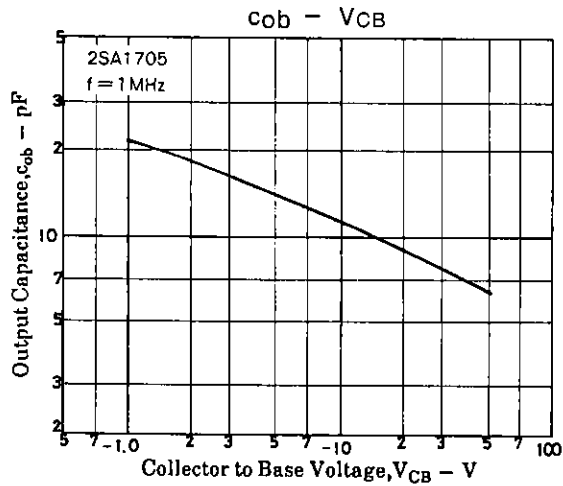
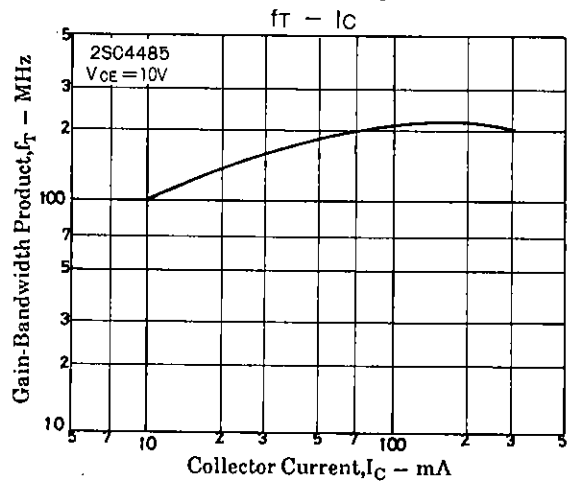
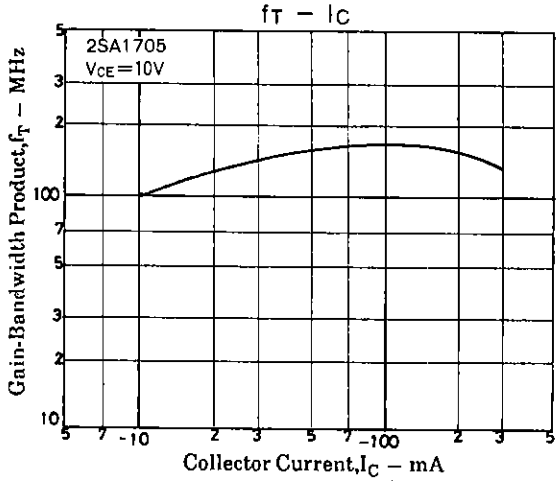
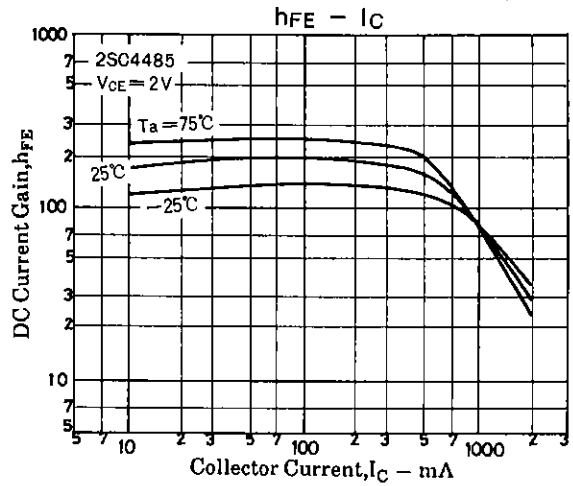
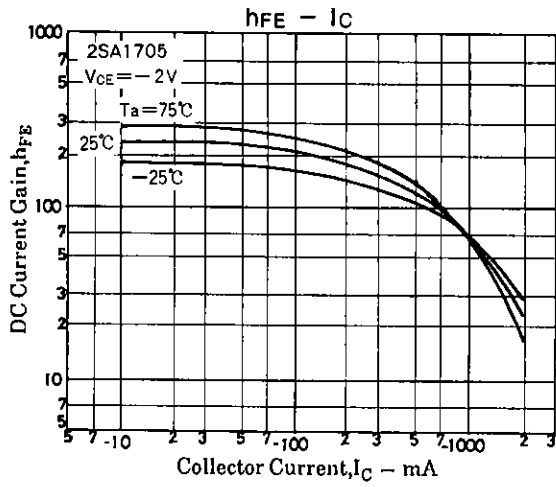
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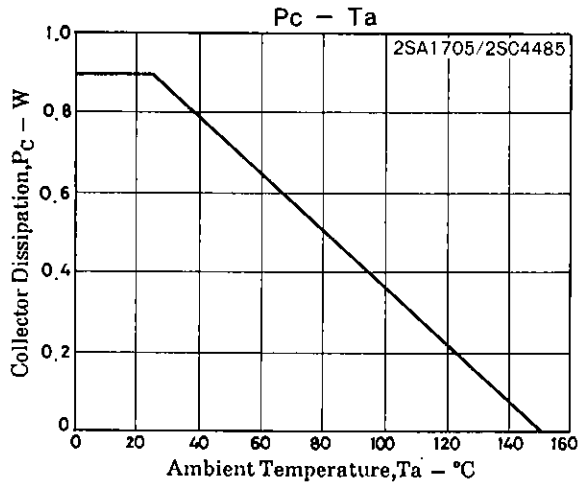
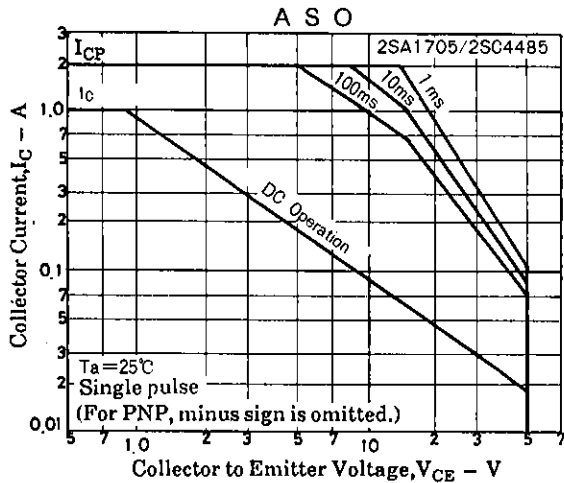
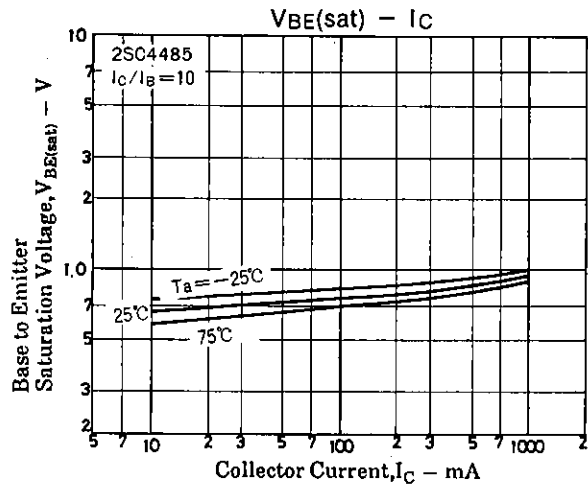
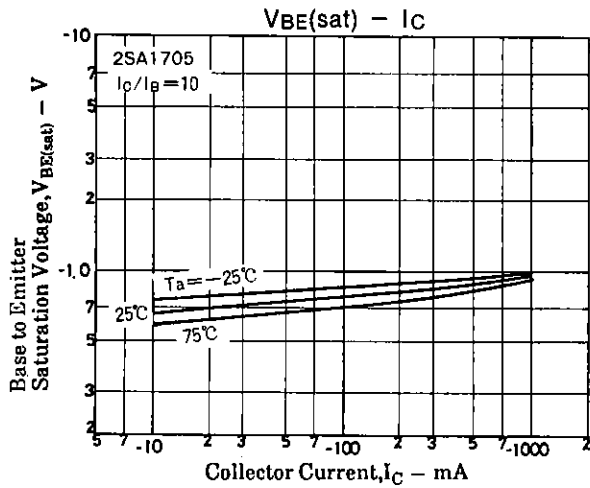
		min	typ	max	unit
C-B Breakdown Voltage	$V_{(BR)CBO}$ $I_C = (-)10\mu A, I_E = 0$	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$ $I_C = (-)1mA, R_{BE} = \infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$ $I_E = (-)10\mu A, I_C = 0$	(-)5			V
Turn-ON Time	$t_{on}$ See specified Test Circuit.		40		ns
Storage Time	$t_{stg}$ "		(300)350		ns
Fall Time	$t_f$ "		30		ns

Switching Time Test Circuit



2SA1705/2SC4485





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