

SANYO	No.3025	2SA1705/2SC4485
		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 _{CB0}	(-)60	V
Collector to Emitter Voltage	V _{CEO}	(-)50	V
Emitter to Base Voltage	V _{EBO}	(-)5	V
Collector Current	I _C	(-)1	A
Collector Current(Pulse)	I _{CP}	(-)2	A
Collector Dissipation	P _C	0.9	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

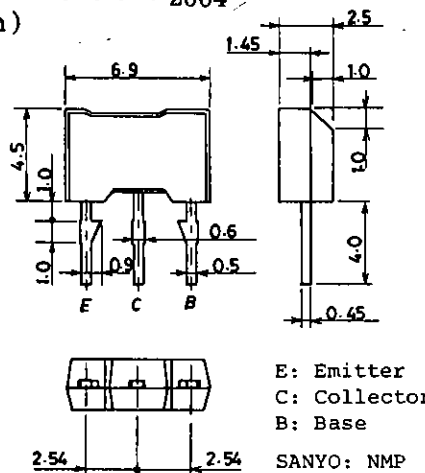
			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)50V, I _E = 0			(-)100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} = (-)4V, I _C = 0			(-)100	nA
DC Current Gain	h _{FE} (1)	V _{CE} = (-)2V, I _C = (-)100mA	100*		400*	
	h _{FE} (2)	V _{CE} = (-)2V, I _C = (-)1A	30			
Gain-Bandwidth Product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

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* : The 2SA1705/2SC4485 are classified by 100mA h_{FE} as follows :

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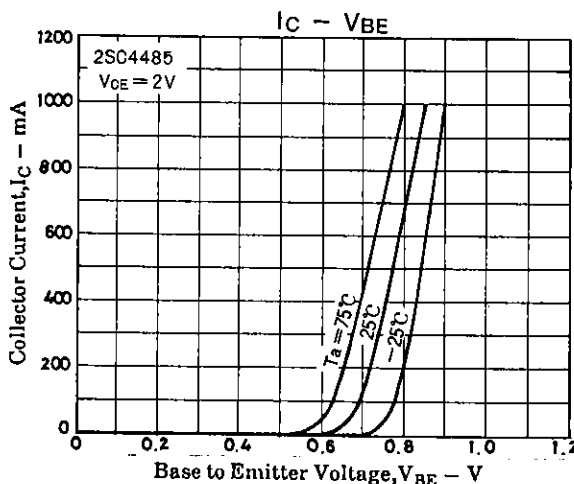
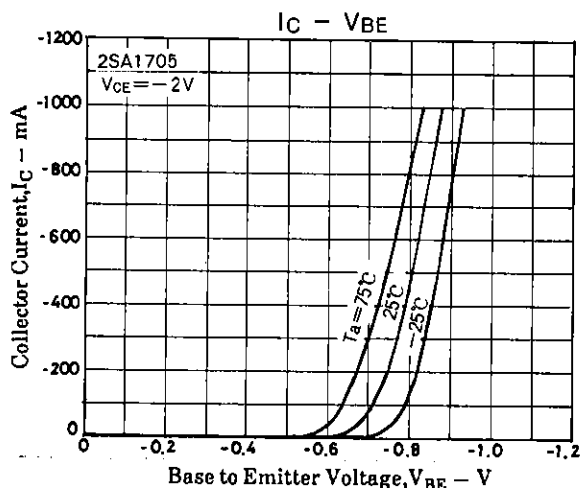
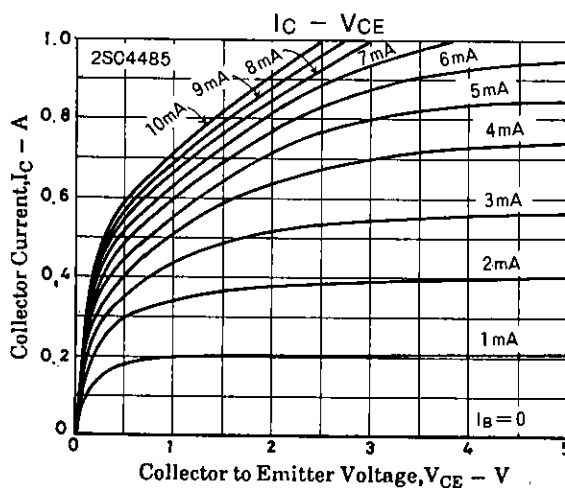
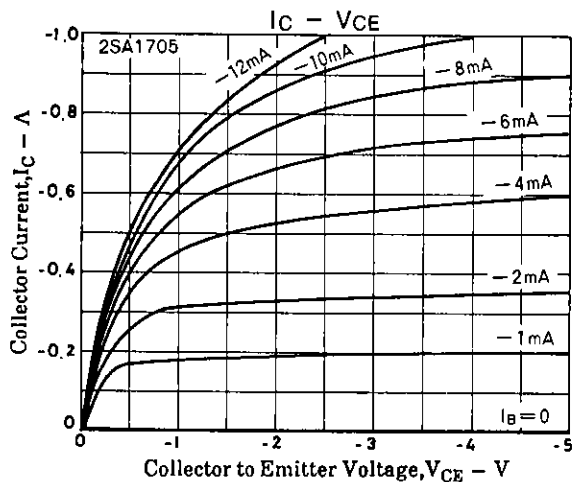
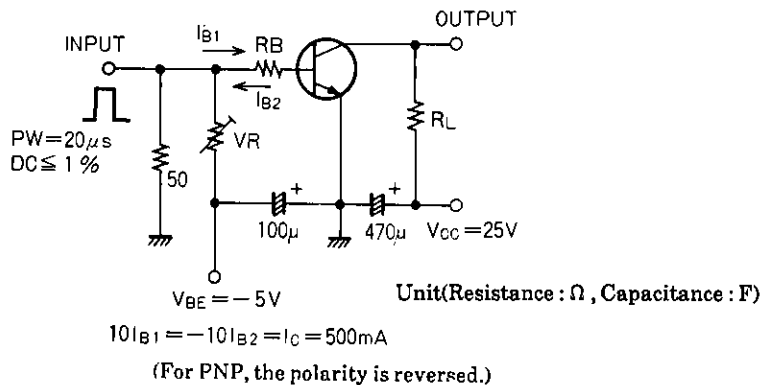
Package Dimensions 2064
(unit: mm)



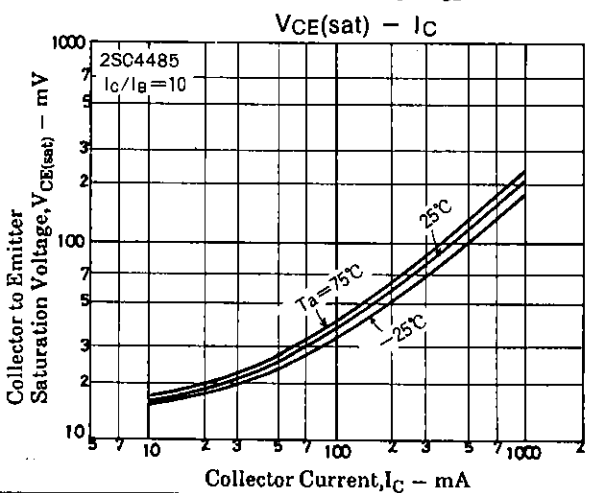
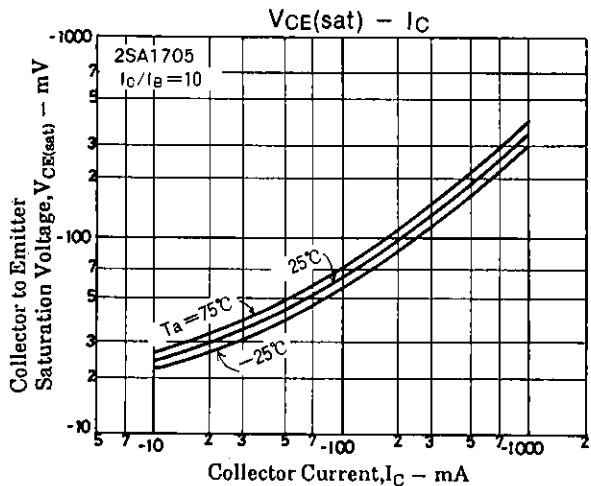
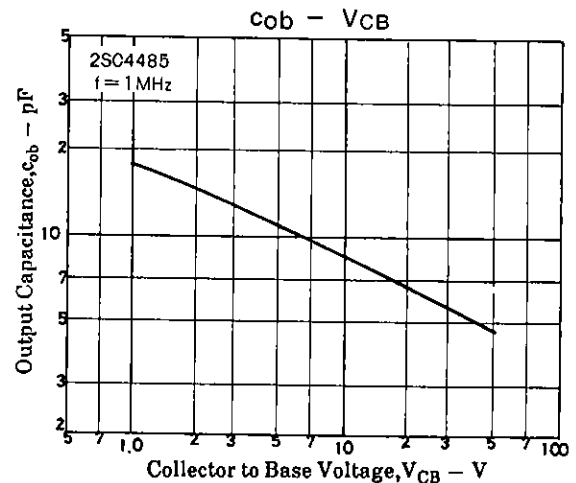
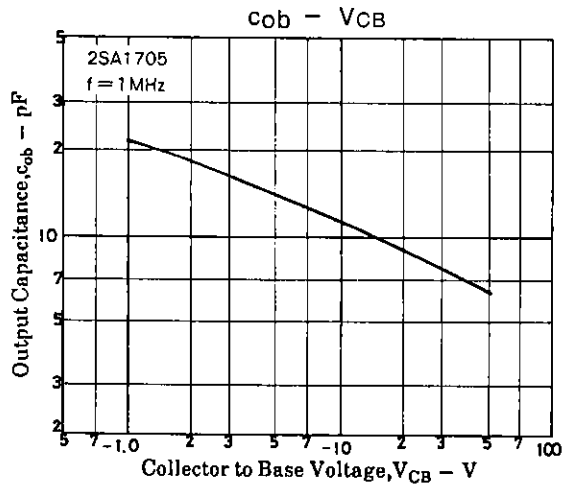
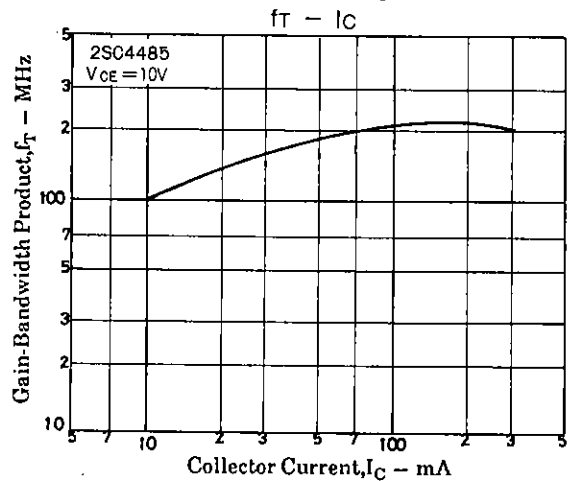
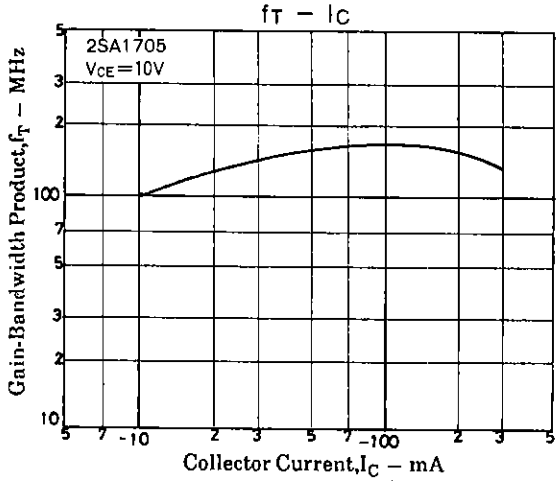
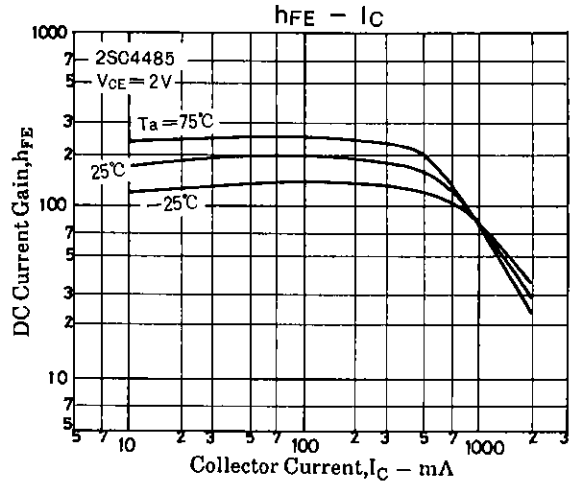
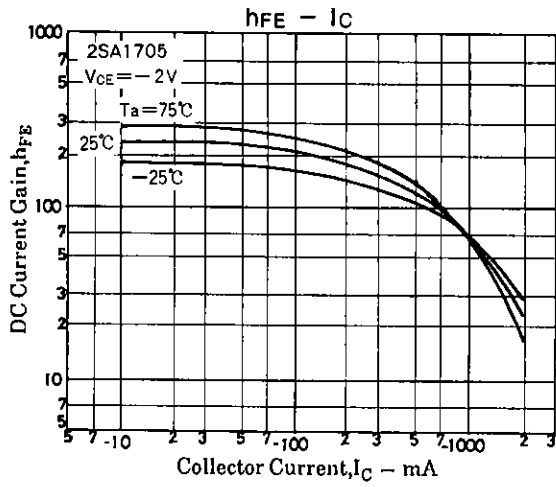
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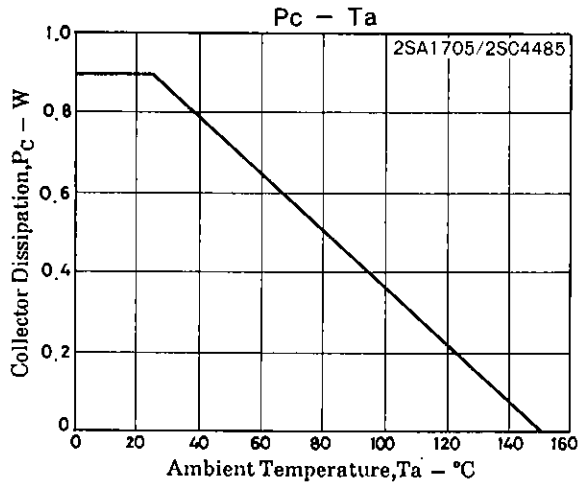
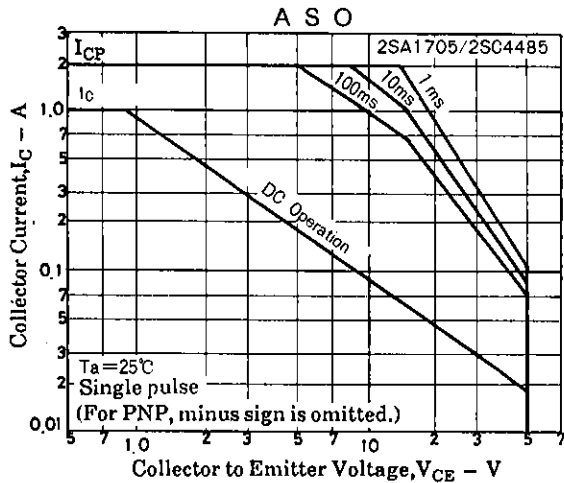
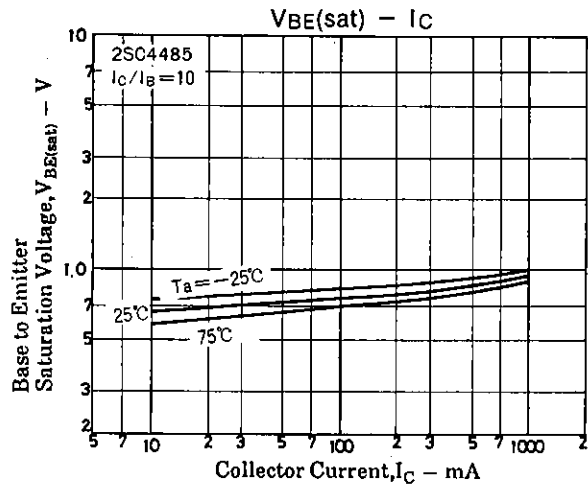
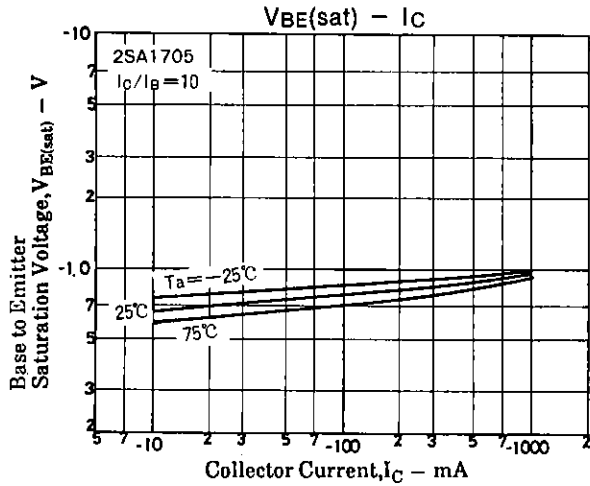
		min	typ	max	unit
C-B Breakdown Voltage	$V_{(BR)CBO}$ $I_C = (-)10\mu A, I_E = 0$	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$ $I_C = (-)1mA, R_{BE} = \infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$ $I_E = (-)10\mu A, I_C = 0$	(-)5			V
Turn-ON Time	t_{on} See specified Test Circuit.		40		ns
Storage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

Switching Time Test Circuit



2SA1705/2SC4485





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