

SANYO	No.3093	2SA1707/2SC4487
		PNP/NPN Epitaxial Planar Silicon Transistors
High-Current Switching Applications		

Features

- Adoption of FBET, MBIT processes
- Large current capacity, wide ASO
- Low collector-to-emitter saturation voltage
- Fast switching speed

() : 2SA1707

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)60	V
Collector to Emitter Voltage	V _{CE0}	(-)50	V
Emitter to Base Voltage	V _{EB0}	(-)6	V
Collector Current	I _C	(-)3	A
Collector Current(Pulse)	I _{CP}	(-)6	A
Collector Dissipation	P _C	1	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	- 55 to + 150	°C

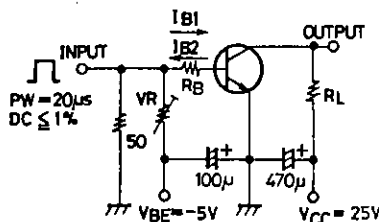
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)40V, I _E = 0			(-)1	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} = (-)4V, I _C = 0			(-)1	μA
DC Current Gain	h _{FE} (1)	V _{CE} = (-)2V, I _C = (-)100mA	100*		400*	
			h _{FE} (2)	35		
Gain-Bandwidth Product	f _T	V _{CE} = (-)10V, I _C = (-)50mA		150		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)2A, I _B = (-)100mA	(-)0.35	(-)0.7		V
				0.2	0.5	
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)2A, I _B = (-)100mA	(-)0.95	(-)1.2		V
Output Capacitance	C _{ob}	V _{CB} = (-)10V, f = 1MHz		(39)25		pF
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)10μA, I _E = 0	(-)60			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)1mA, R _{BE} = ∞	(-)50			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E = (-)10μA, I _C = 0	(-)6			V
Turn-ON Time	t _{on}	See specified Test Circuit.		70		ns
Storage Time	t _{stg}	"		(450)		ns
				650		
Fall Time	t _f	"		35		ns

*: The 2SA1707/2SC4487 are classified by 100mA h_{FE} as follows:

100 R 200	140 S 280	200 T 400
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Switching Time Test Circuit

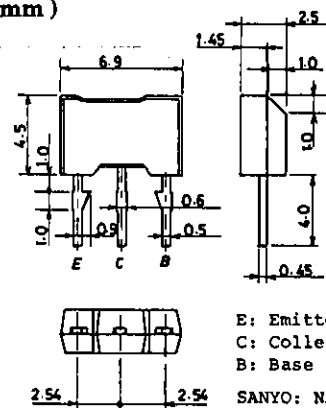


10I_{B1} = - 10I_{B2} = I_C = 1A Unit(Resistance : Ω , Capacitance : F)

(For PNP, the polarity is reversed.)

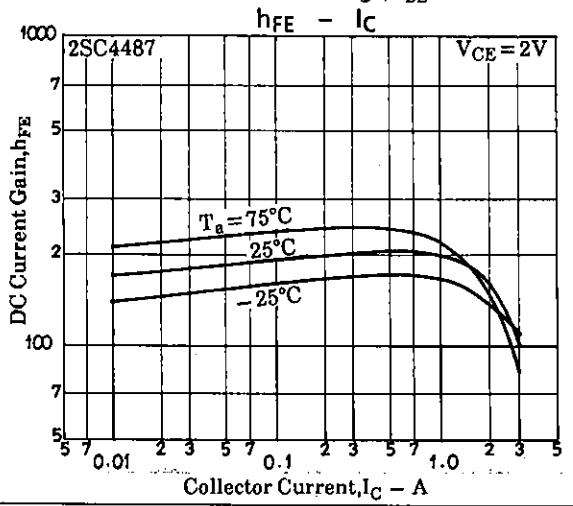
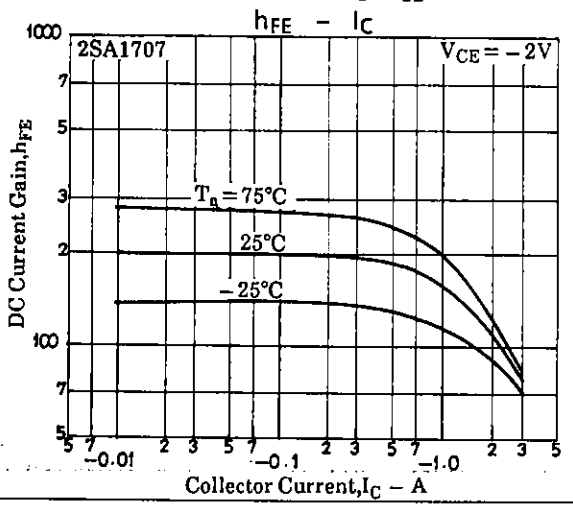
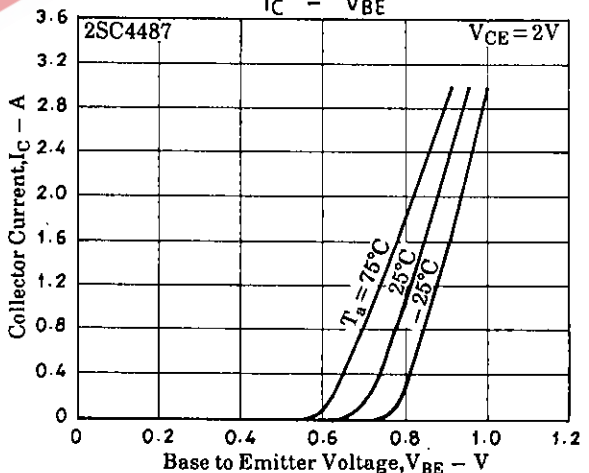
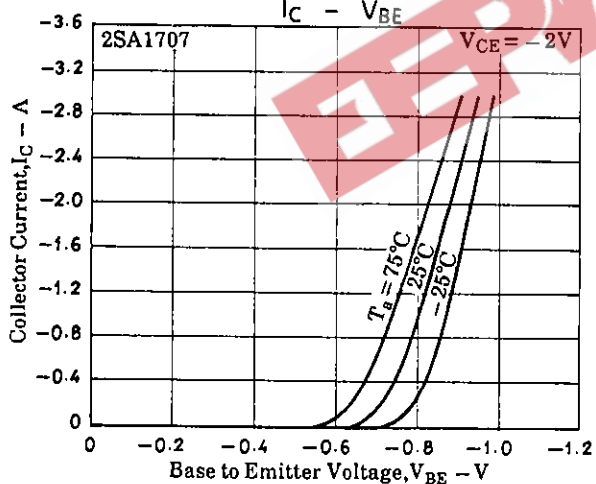
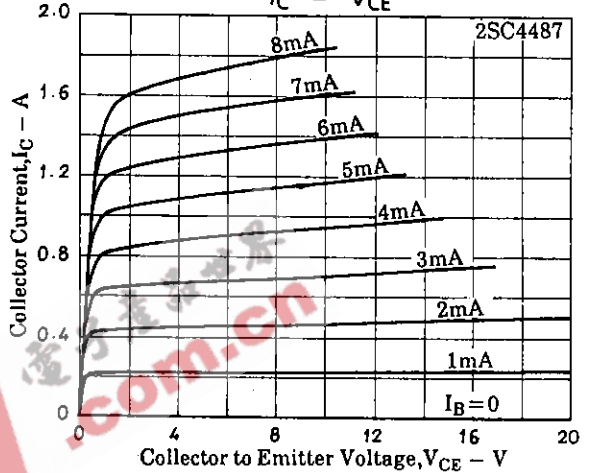
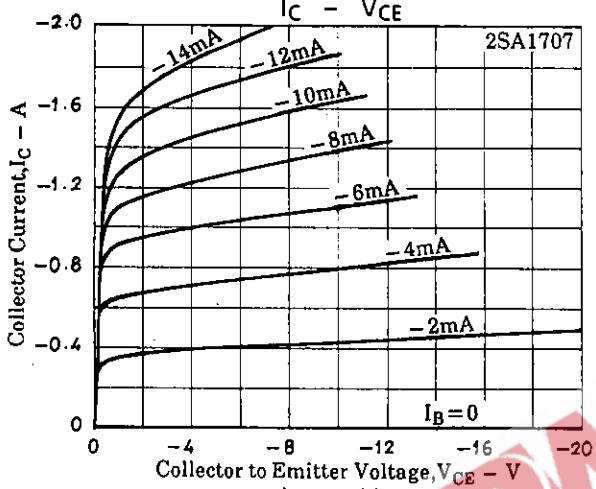
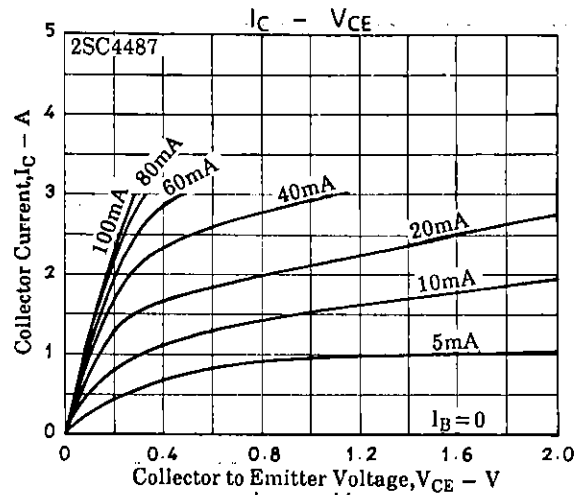
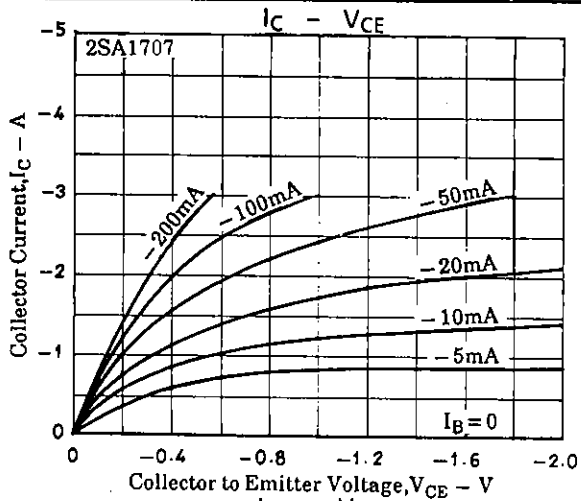
Package Dimensions
(unit: mm)

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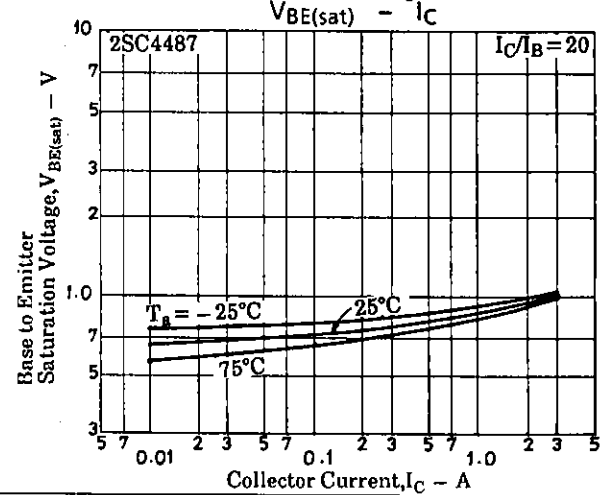
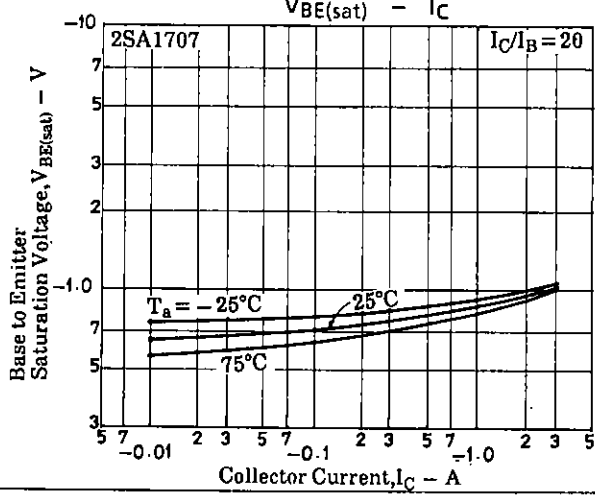
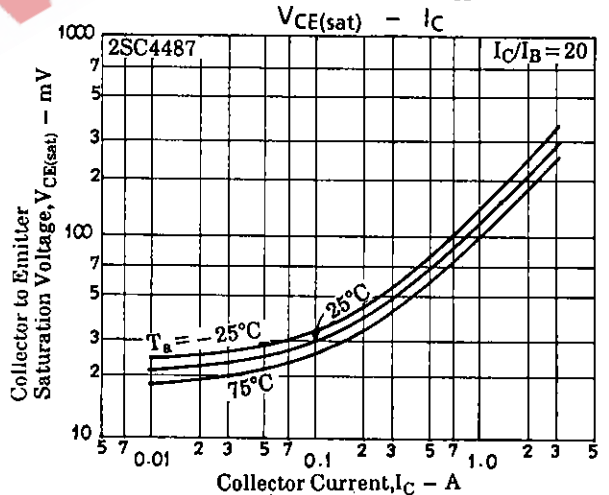
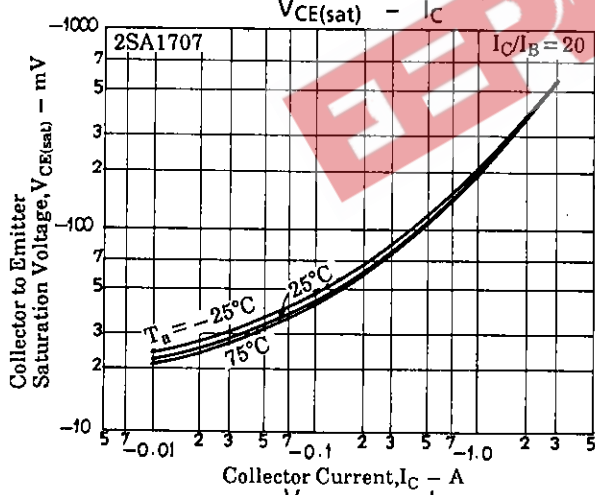
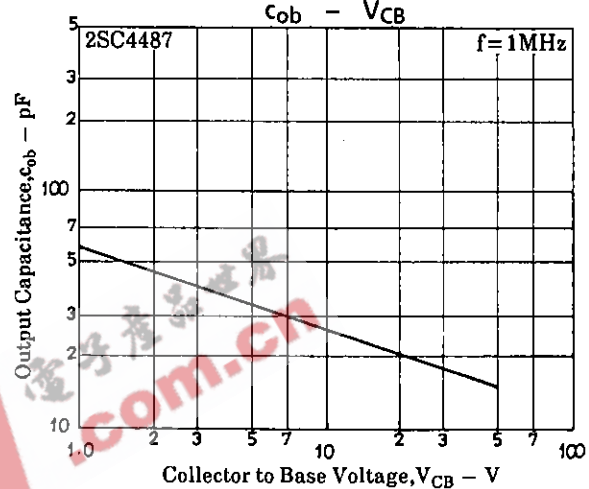
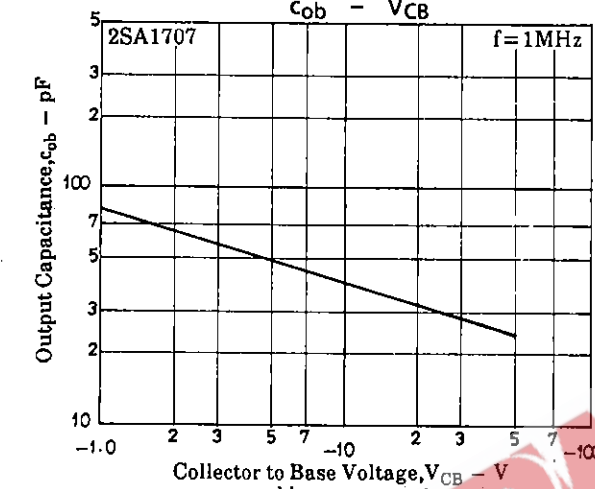
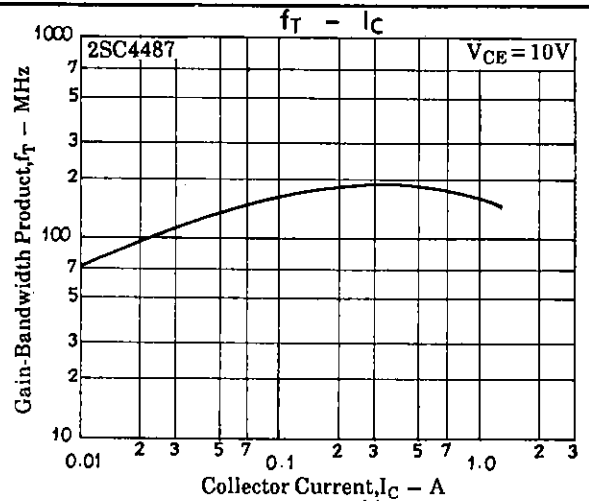
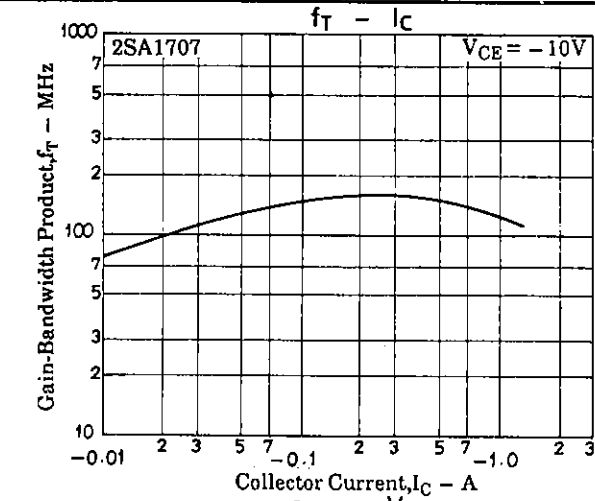


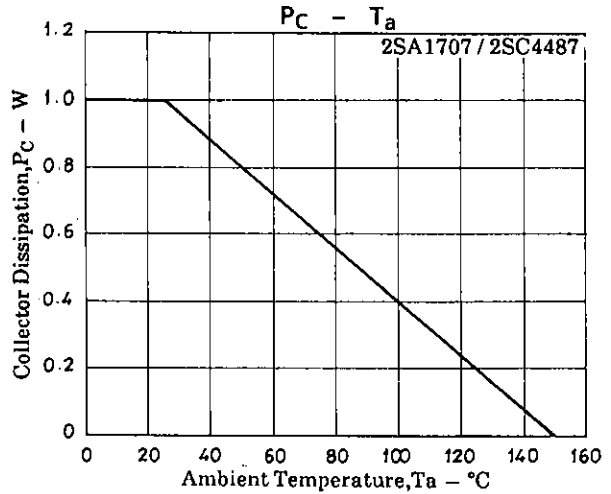
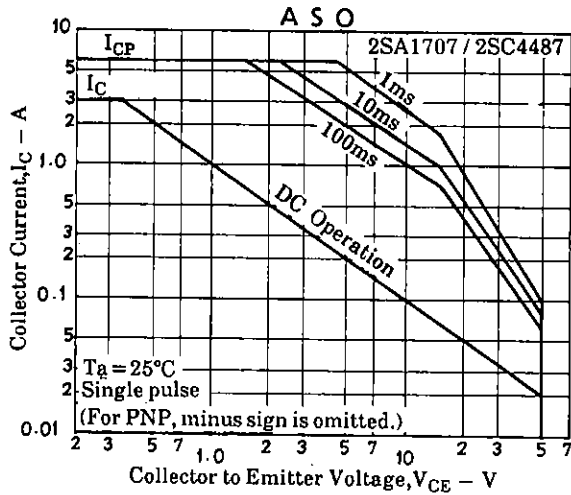
E: Emitter
C: Collector
B: Base
SANYO: NMP

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