

SANYO	No.3134	2SA1730
	PNP Epitaxial Planar Silicon Transistor	
High-Speed Switching Applications		

Features

- Adoption of FBET, MBIT processes
- Large current capacity
- Low collector-to-emitter saturation voltage
- Fast switching speed
- Small-sized package

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector to Base Voltage	V _{CB0}	-50	V
Collector to Emitter Voltage	V _{CE0}	-40	V
Emitter to Base Voltage	V _{EBO}	-5	V
Collector Current	I _C	-3	A
Collector Current(Pulse)	I _{CP}	-6	A
Collector Dissipation	P _C	1.5	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Mounted on ceramic board (250mm² × 0.8mm)

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 _{EBO}	V _{EB} = -3V, I _C = 0			-1	μA
DC Current Gain	h _{FE(1)}	V _{CE} = -2V, I _C = -500mA	70*		280*	
	h _{FE(2)}	V _{CE} = -2V, I _C = -3A	25			
Gain-Bandwidth Product	f _T	V _{CE} = -2V, I _C = -500mA		300		MHz
Output Capacitance	c _{ob}	V _{CB} = -10V, f = 1MHz		35		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = -1.5A, I _B = -75mA	-0.3		-0.8	V
B-E Saturation Voltage	V _{BE(sat)}	I _C = -1.5A, I _B = -75mA	-0.95		-1.3	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = -10μA, I _E = 0	-50			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} = ∞	-40			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E = -10μA, I _C = 0	-5			V
Turn-ON Time	t _{on}	See specified Test Circuit.		50	100	ns
Storage Time	t _{stg}	∞		120	220	ns
Turn-OFF Time	t _{off}	∞		150	300	ns

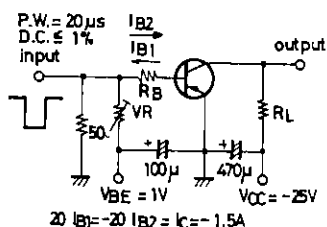
*: The 2SA1730 is classified by 500mA h_{FE} as follows:

70 Q 140	100 R 200	140 S 280
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Marking : AH

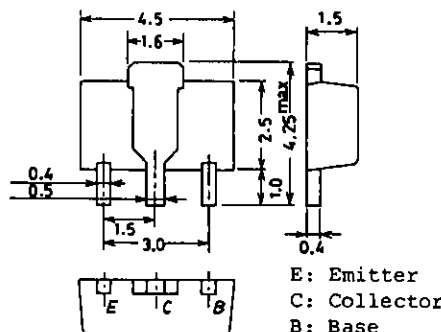
h_{FE} rank : Q,R,S

Switching Time Test Circuits



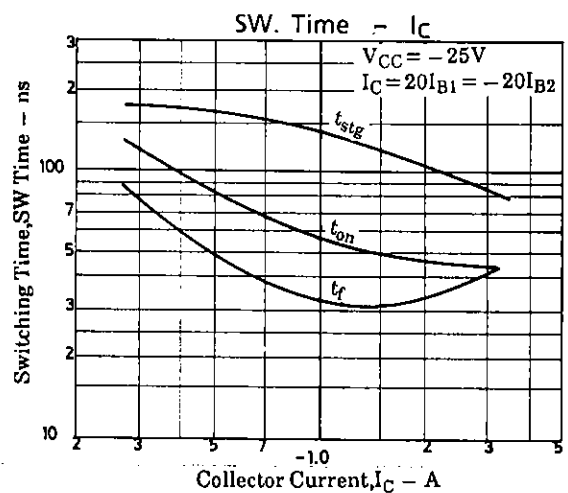
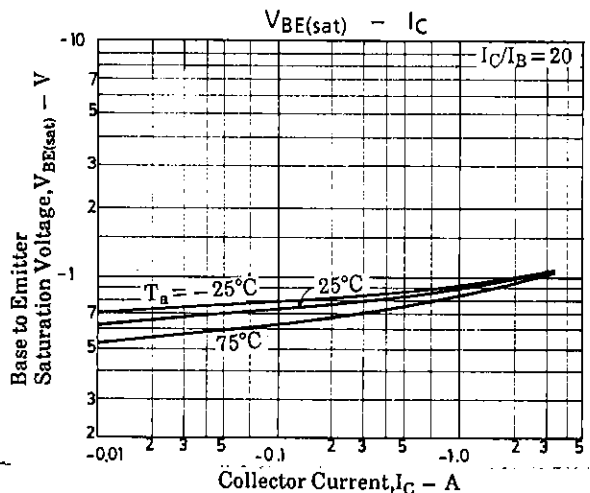
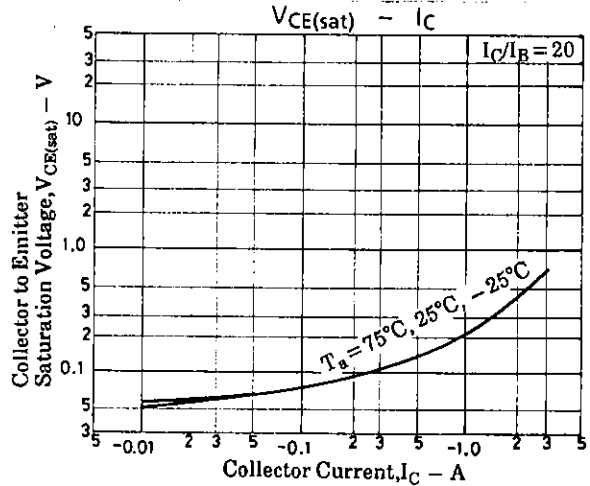
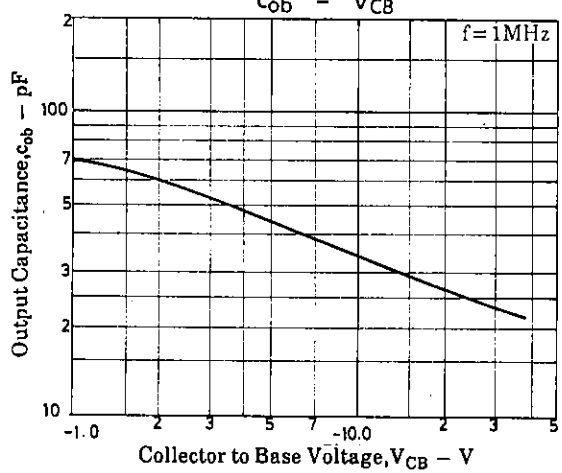
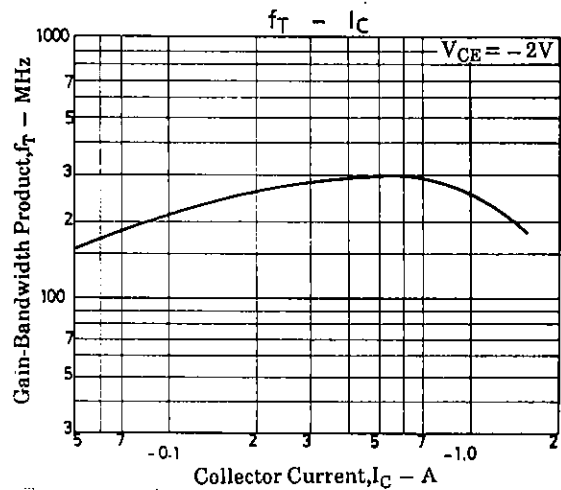
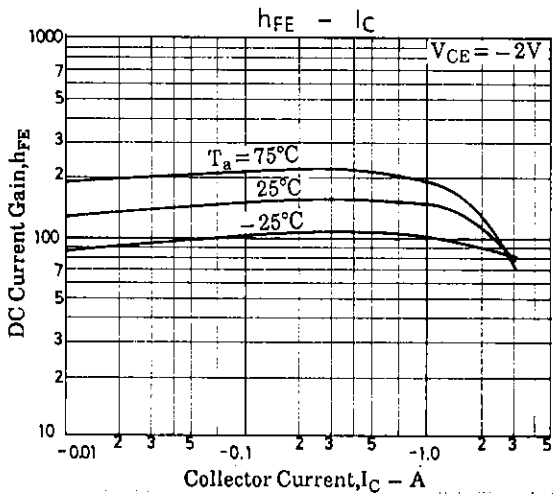
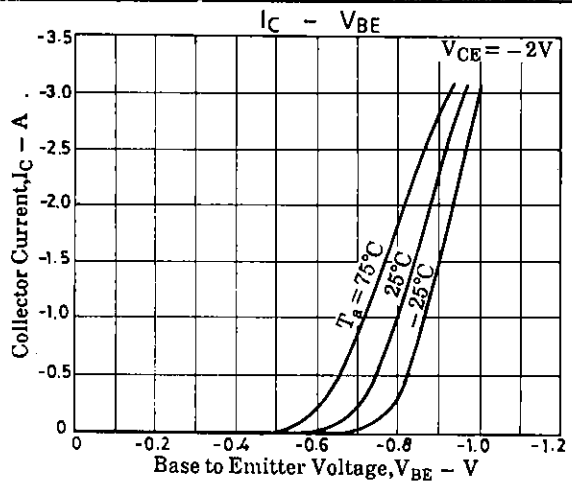
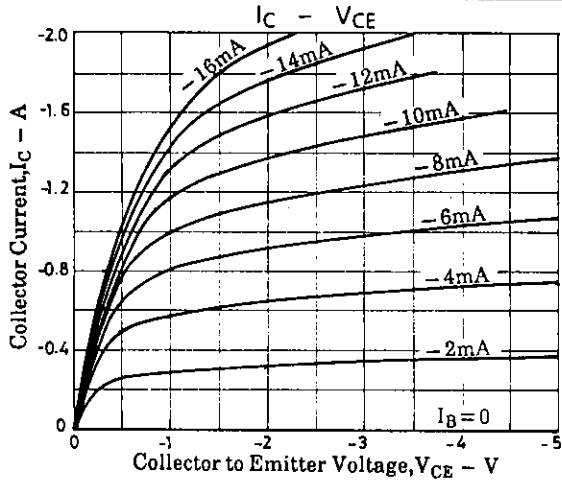
Unit (Resistance : Ω, Capacitance : F)

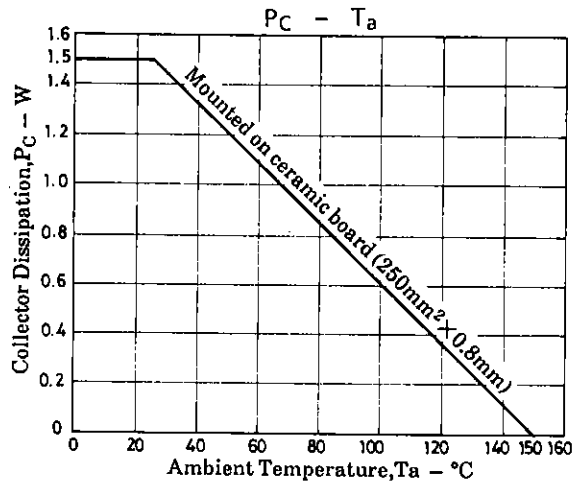
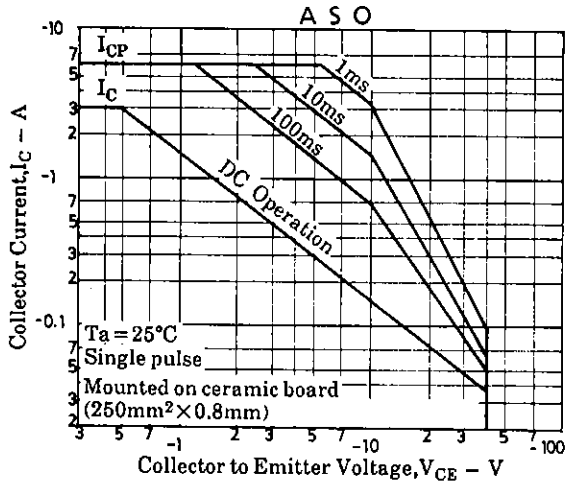
Package Dimensions 2038
(unit: mm)



E: Emitter
C: Collector
B: Base

SANYO: PCP
(Bottom View)





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