

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 $T_a = 25^\circ\text{C}$

			unit
Collector to Base Voltage	V_{CB0}	-50	V
Collector to Emitter Voltage	V_{CE0}	-40	V
Emitter to Base Voltage	V_{EB0}	-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	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

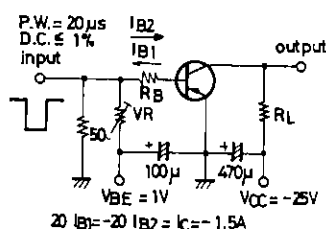
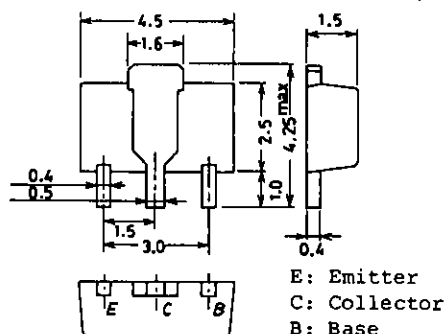
Mounted on ceramic board (250mm² × 0.8mm)**Electrical Characteristics at $T_a = 25^\circ\text{C}$**

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -40\text{V}, I_E = 0$			-1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -3\text{V}, I_C = 0$			-1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	70*		280*	
	$h_{FE(2)}$	$V_{CE} = -2\text{V}, I_C = -3\text{A}$	25			
Gain-Bandwidth Product	f_T	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$		300		MHz
Output Capacitance	c_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		35		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -1.5\text{A}, I_B = -75\text{mA}$	-0.3	-0.8		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = -1.5\text{A}, I_B = -75\text{mA}$	-0.95	-1.3		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-50			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-40			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-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

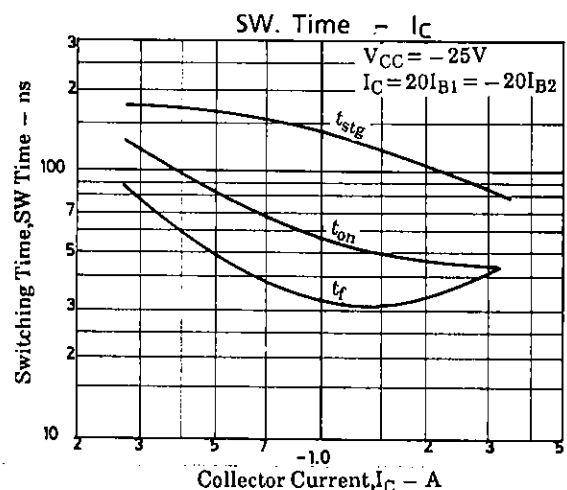
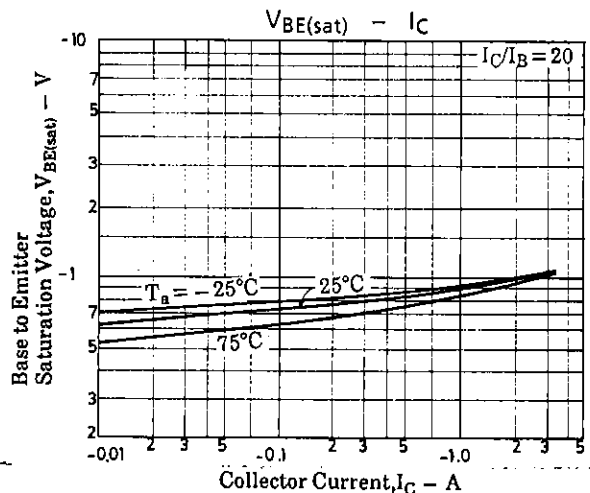
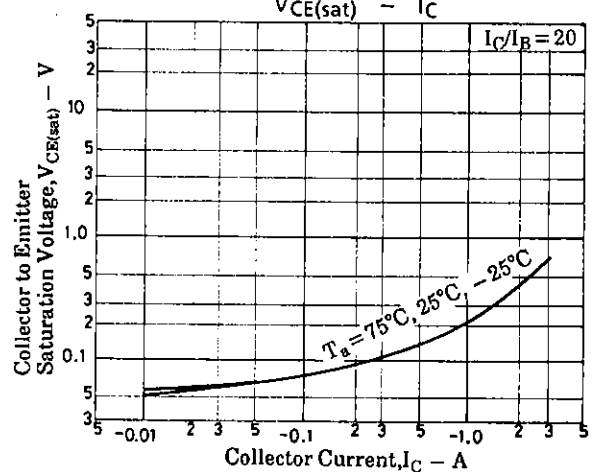
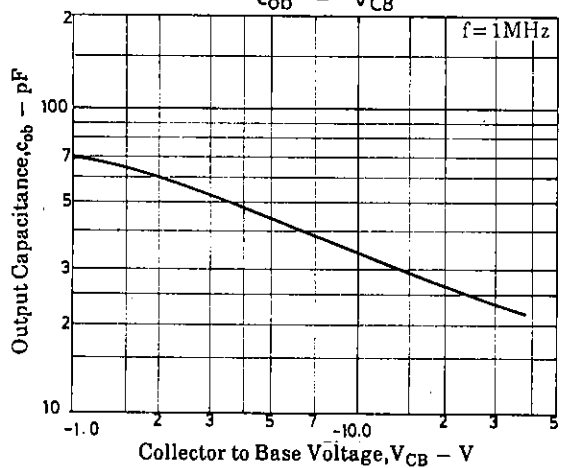
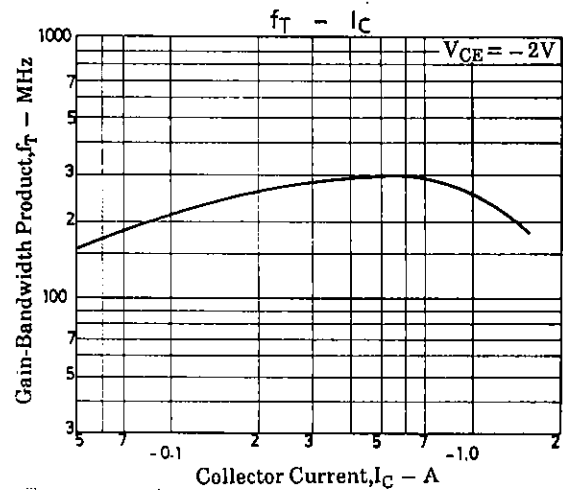
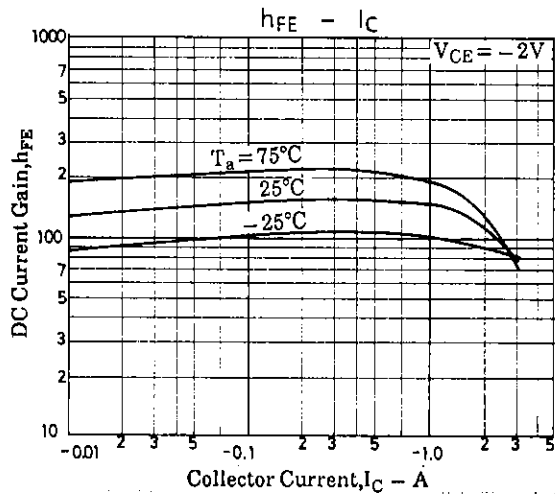
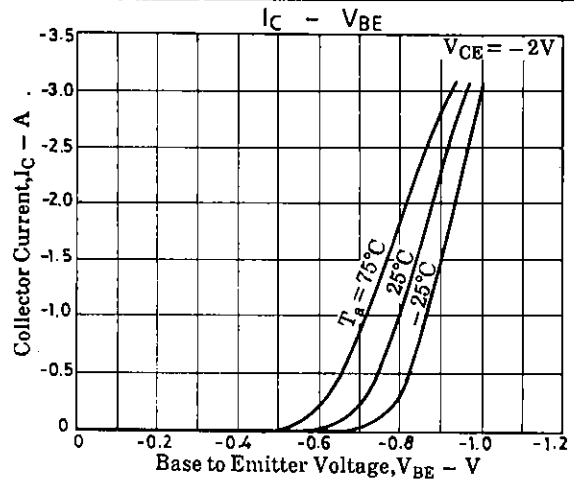
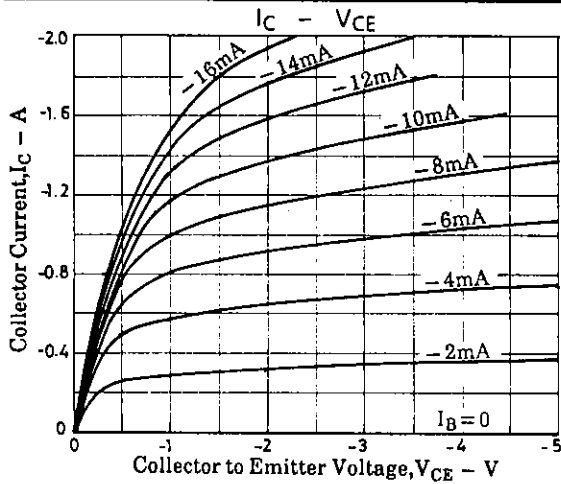
*: The 2SA1730 is classified by 500mA h_{FE} as follows:

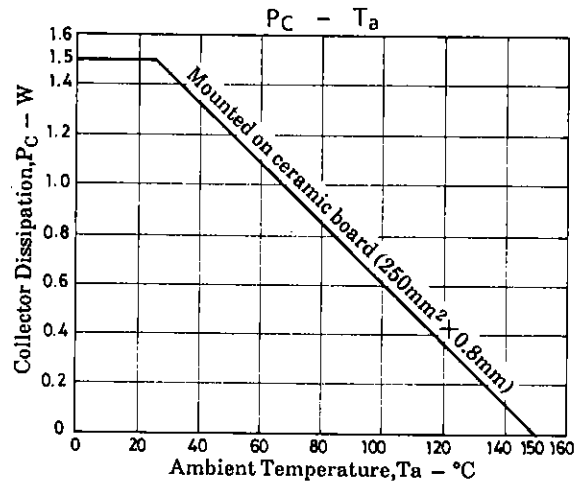
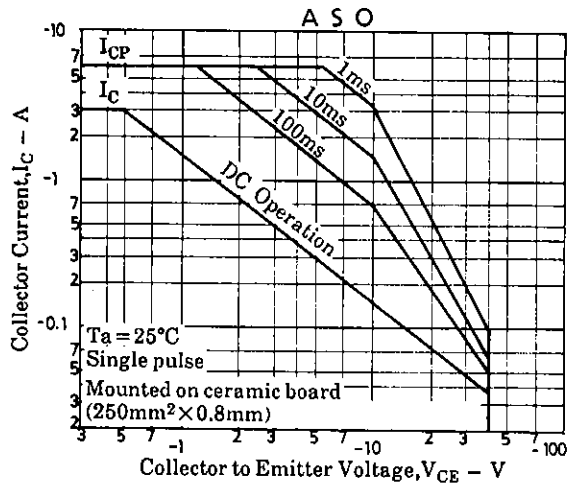
70	Q	140	100	R	200	140	S	280
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Marking : AH

 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: BaseSANYO: PCP
(Bottom View)

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