



No.3133

2SA1729

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 _{CEO}	-40	V
Emitter to Base Voltage	V _{EBO}	-5	V
Collector Current	I _C	-1.5	A
Collector Current(Pulse)	I _{CP}	-3	A
Collector Dissipation	P _C	Mounted on ceramic board (250mm ² × 0.8mm) 1.3 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 _{EBO}	V _{EB} = -3V, I _C = 0			-1	μA
DC Current Gain	h _{FE} (1)	V _{CE} = -2V, I _C = -100mA	70*		280*	
	h _{FE} (2)	V _{CE} = -2V, I _C = -1.5A	25			
Gain-Bandwidth Product	f _T	V _{CE} = -2V, I _C = -100mA		300		MHz
Output Capacitance	c _{ob}	V _{CB} = -10V, f = 1MHz		18		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = -800mA, I _B = -40mA	-0.3		-0.8	V
B-E Saturation Voltage	V _{BE(sat)}	I _C = -800mA, I _B = -40mA	-0.9		-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

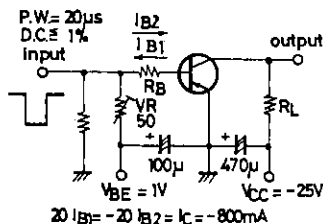
* : The 2SA1729 is classified by 100mA h_{FE} as follows :

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

h_{FE} rank : Q,R,S

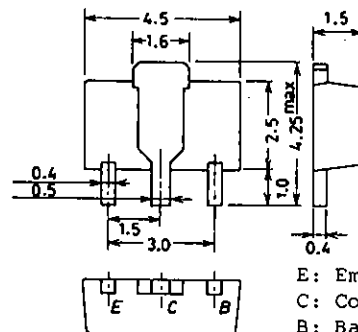
Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2038

(unit : mm)



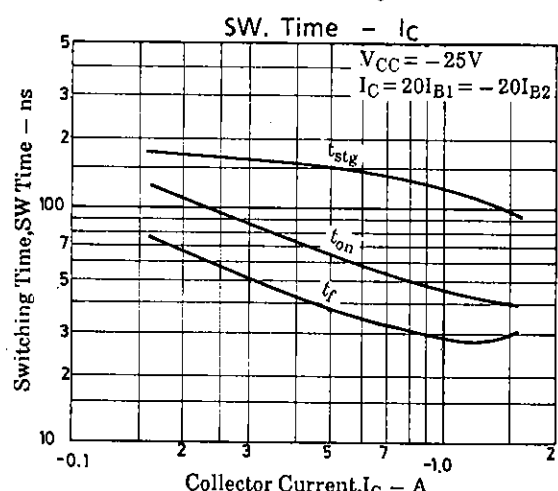
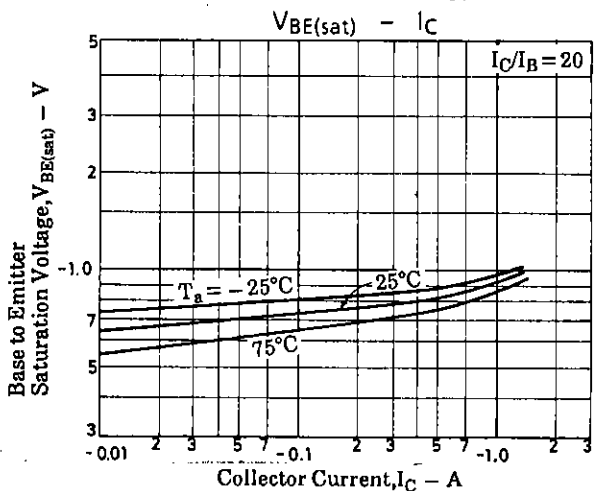
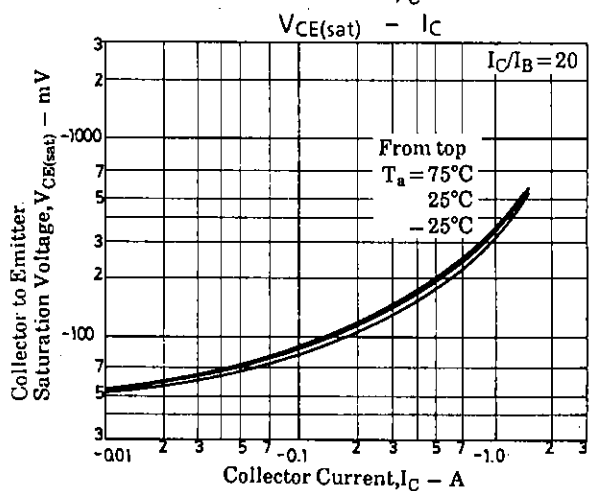
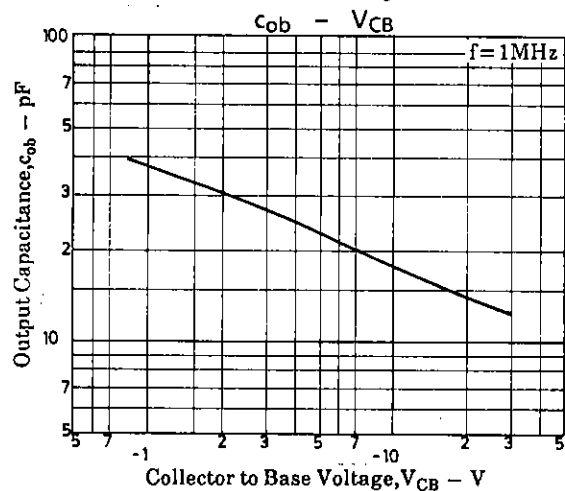
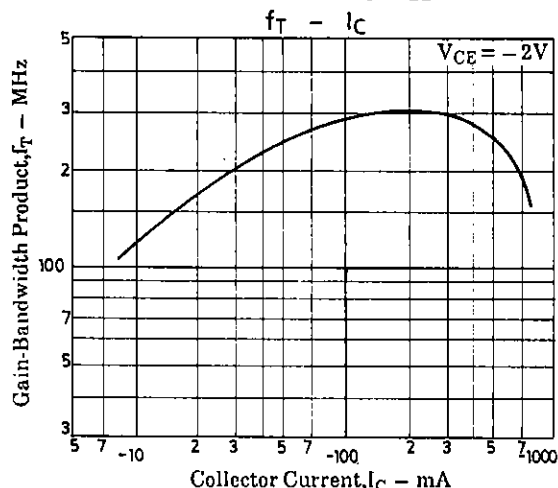
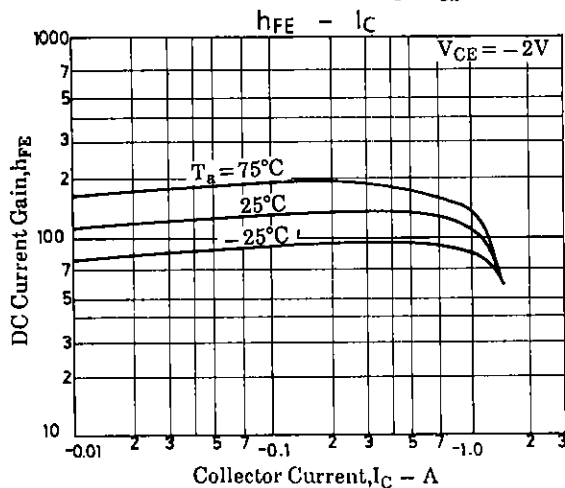
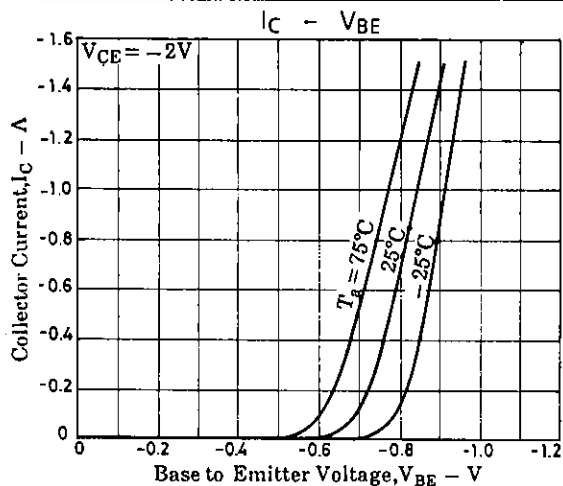
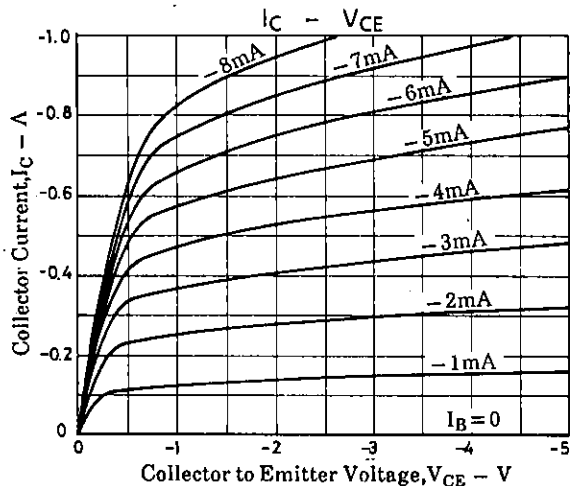
E: Emitter
C: Collector
B: Base

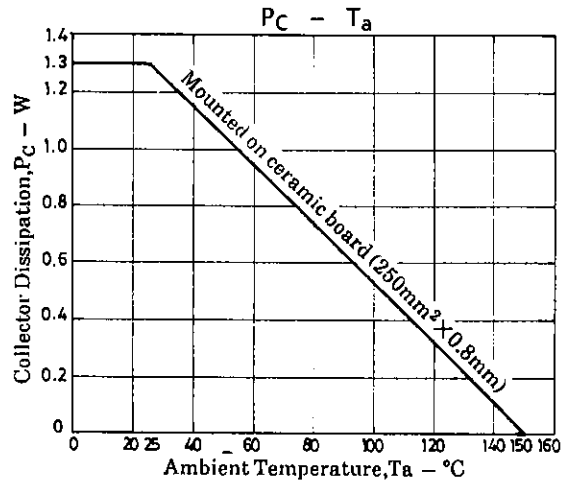
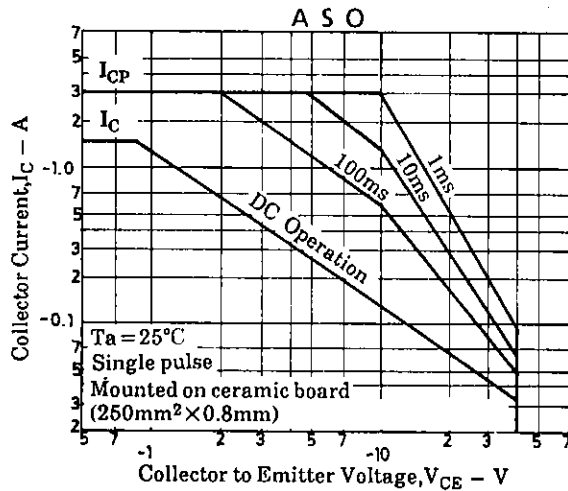
SANYO: PCP

(Bottom View)

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