

SANYO	No.3135A	2SA1731
	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

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	-5	A
Collector Current(Pulse)	I _{CP}	-8	A
Collector Dissipation	P _C	1	W
		15	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

T_c = 25°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 = -500mA	70*		280*	
	h _{FE} (2)	V _{CE} = -2V, I _C = -5A	25			
Gain-Bandwidth Product	f _T	V _{CE} = -2V, I _C = -500mA		300		MHz
Output Capacitance	c _{ob}	V _{CB} = -10V, f = 1MHz		60		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = -2.5A, I _B = -125mA	-0.3	-0.8		V
B-E Saturation Voltage	V _{BE(sat)}	I _C = -2.5A, I _B = -125mA	-0.95	-1.3		V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = -100μA, 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 = -100μA, I _C = 0	-5			V

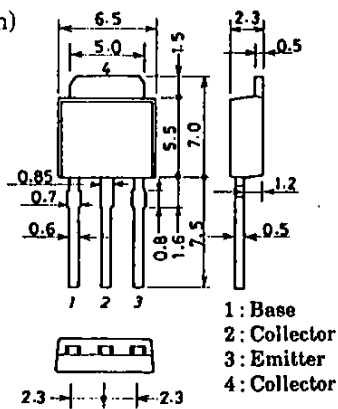
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*: The 2SA1731 is classified by 500mA h_{FE} as follows:

70 Q 140	100 R 200	140 S 280
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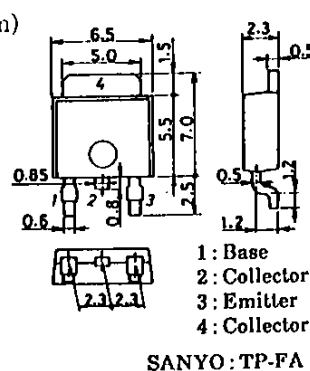
Package Dimensions 2045B

(unit : mm)



Package Dimensions 2044B

(unit : mm)

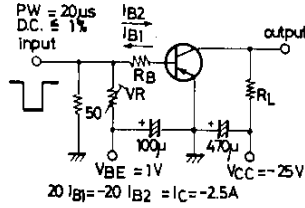


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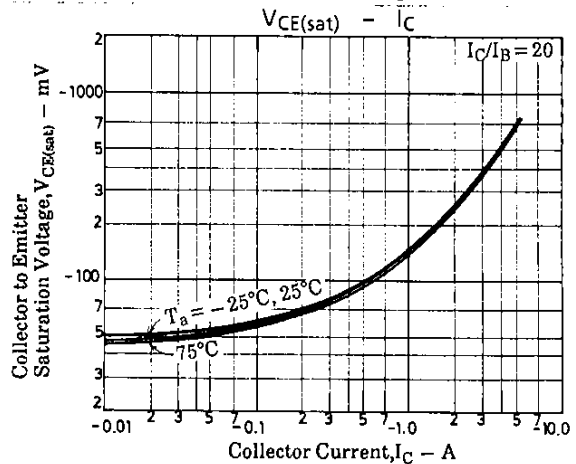
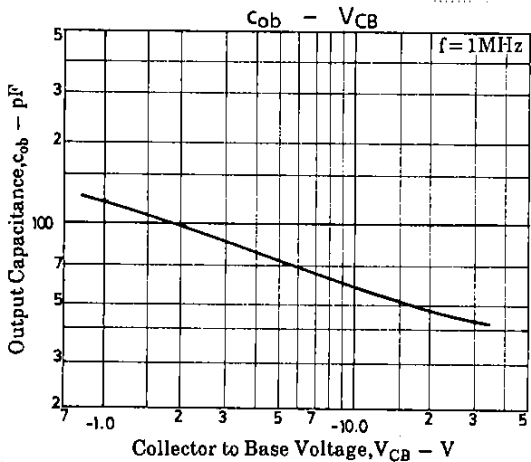
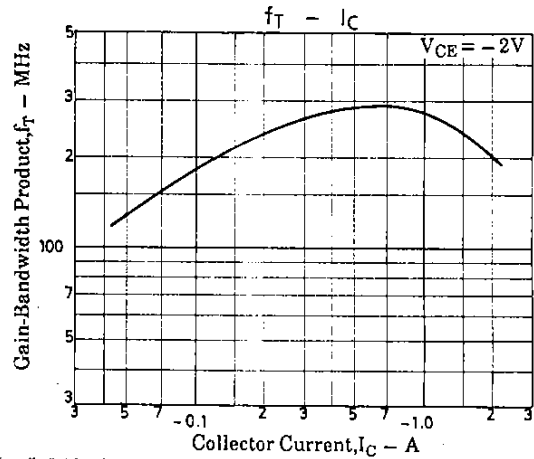
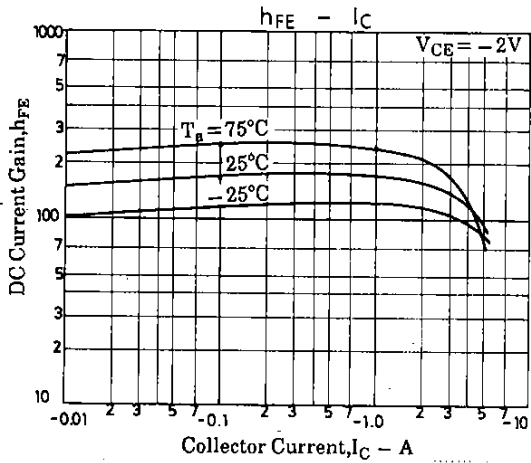
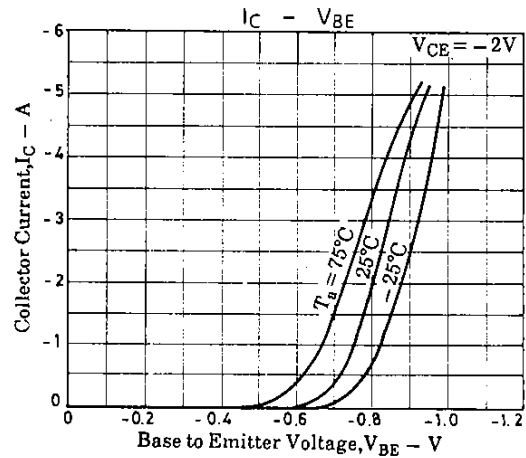
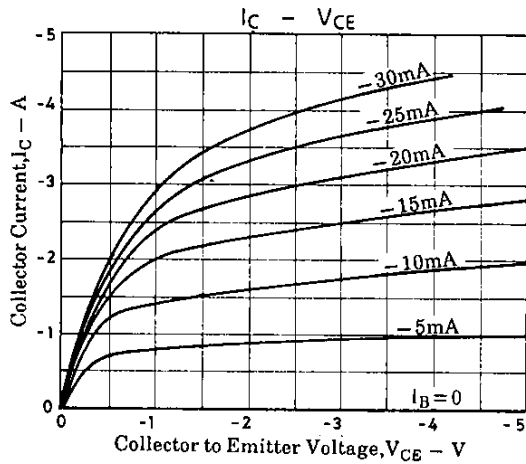
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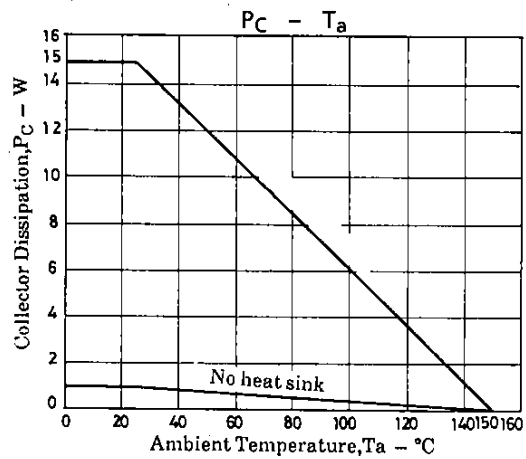
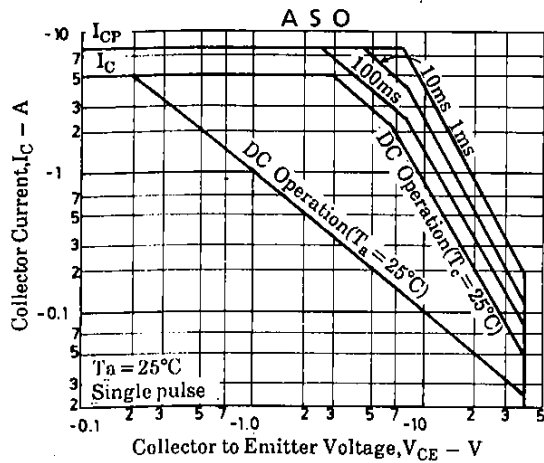
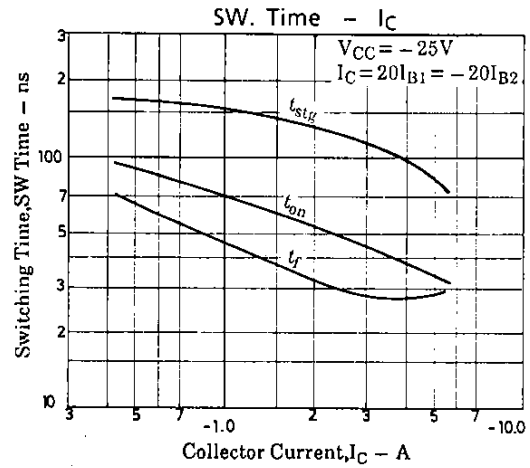
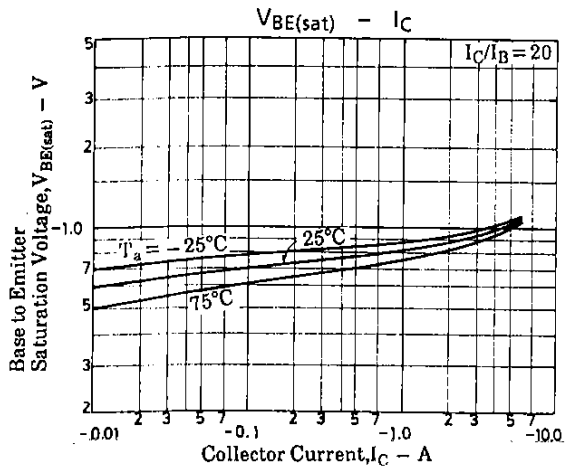
			min	typ	max	unit
Turn-ON Time	t_{on}	See specified Test Circuit.		50	100	ns
Storage Time	t_{stg}	"		120	220	ns
Turn-OFF Time	t_{off}	"		150	300	ns

Switching Time Test Circuit



Unit (Resistance : Ω , Capacitance : F)





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