



2SA1732

High-Speed Switching Applications

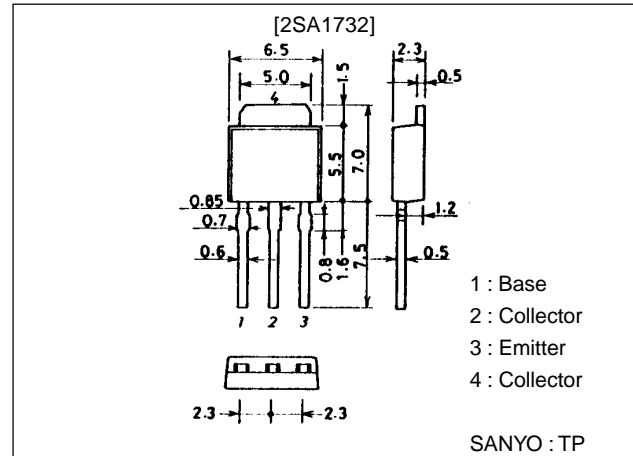
Features

- Adoption of FBET processes.
- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.

Package Dimensions

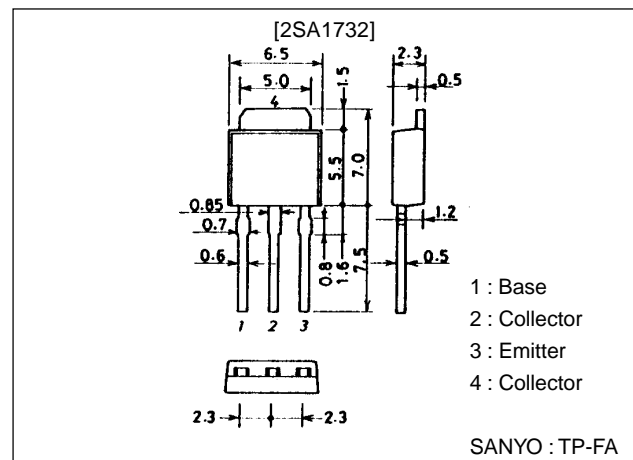
unit:mm

2045B



unit:mm

2044B



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Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	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		-8	A
Collector Current (Pulse)	I _{CP}		-12	A
Collector Dissipation	P _C		1	W
		T _C =25°C	15	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

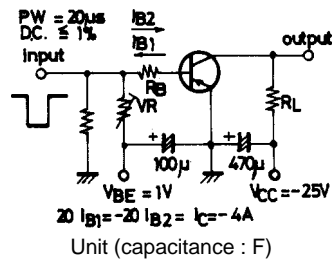
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	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 _{FE1}	V _{CE} =-2V, I _C =-500mA	70*		280*	
	h _{FE2}	V _{CE} =-2V, I _C =-8A	25			
Gain-Bandwidth Product	f _T	V _{CE} =-2V, I _C =-500mA		250		MHz
Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz		100		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-4A, I _B =-200mA	-0.3		-0.8	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-4A, I _B =-200mA	-0.95		-1.3	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	-50			V
Collector-to-Emitter Saturation Voltage	V _{(BR)CEO}	I _C =-1mA, R _{BE} =∞	-40			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =-100μA, I _C =0	-5			V
Turn-ON Time	t _{on}	See specified Test Circuit		50	100	ns
Storage Time	t _{stg}	See specified Test Circuit		120	220	ns
Turn-OFF Time	t _{off}	See specified Test Circuit		150	300	ns

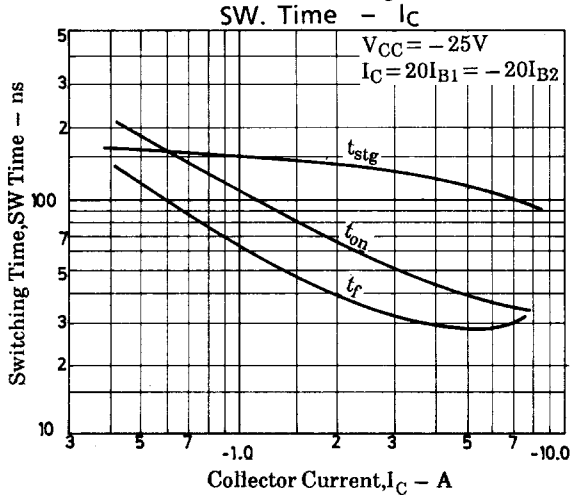
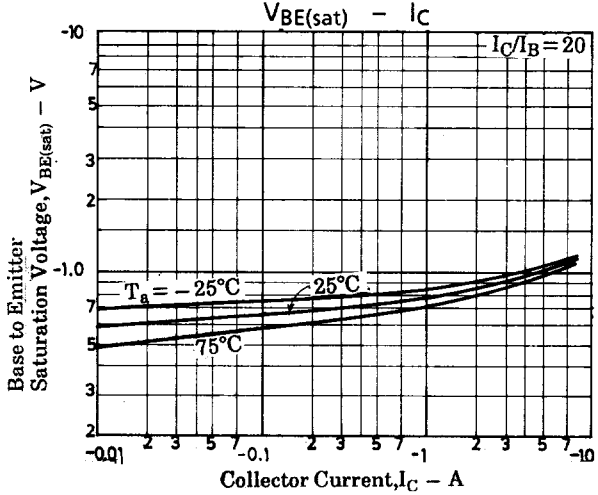
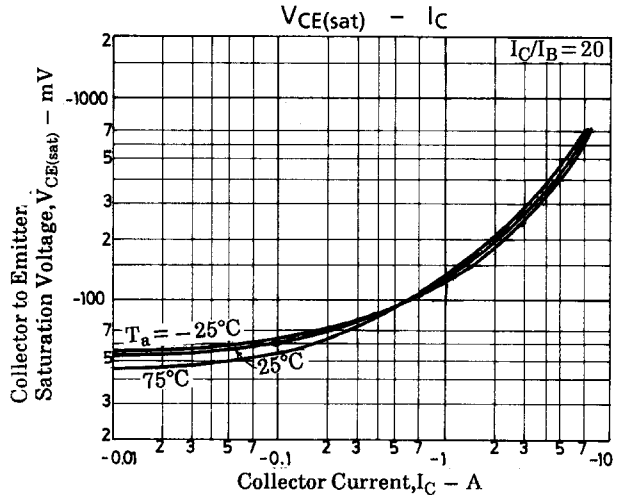
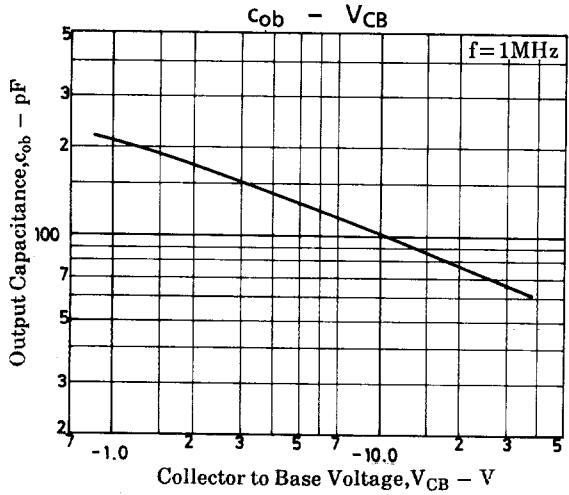
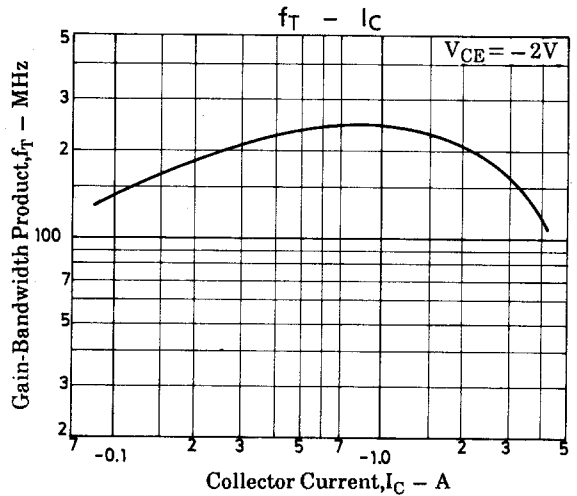
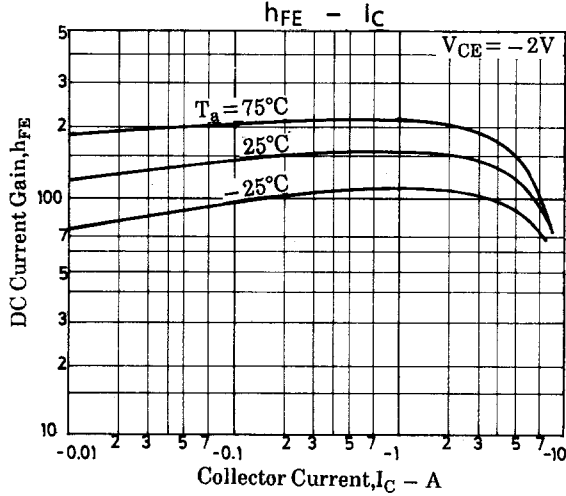
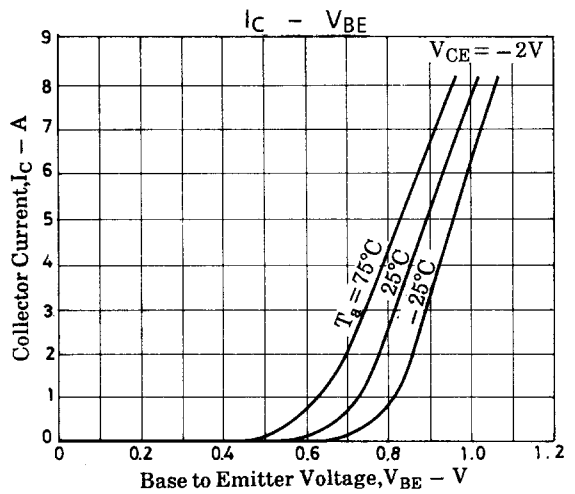
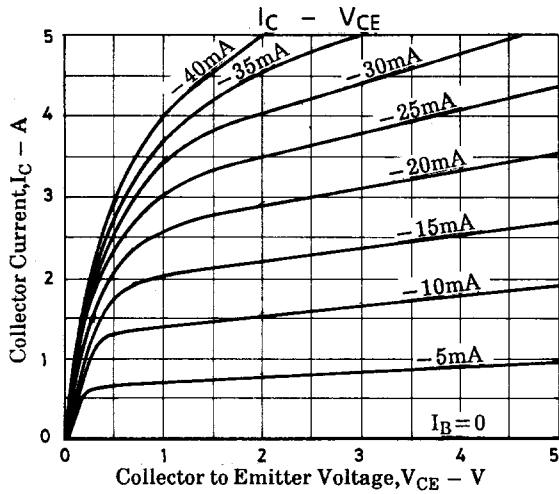
* : The 2SA1732 is classified by 500mA h_{FE} as follows :

70	Q	140	100	R	200	140	S	280
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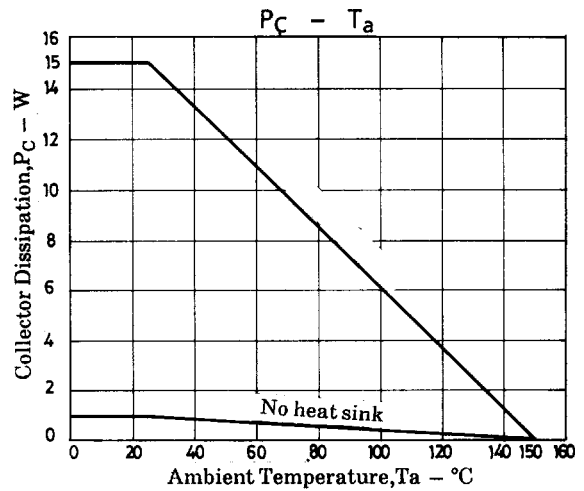
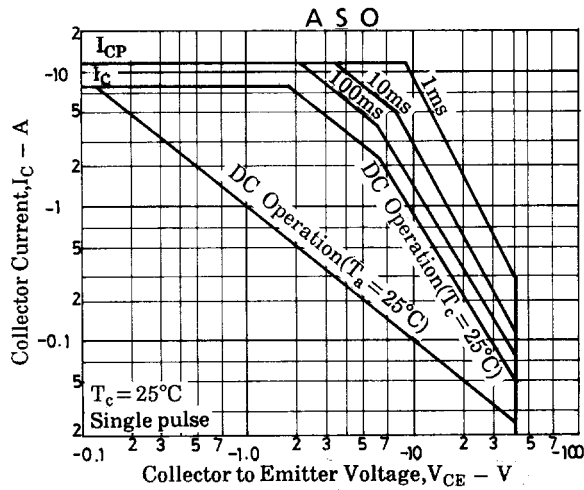
Switching Time Test Circuit



2SA1732



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