

SANYO	No.3141A	2SC4522
	NPN 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}	60	V
Collector to Emitter Voltage	V _{CEO}	45	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
		150	°C
Junction Temperature	T _j		
Storage Temperature	T _{stg}	-55 to +150	°C

T_c = 25°C

Electrical Characteristics at Ta = 25°C

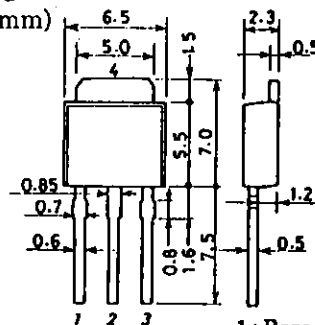
			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = 45V, I _E = 0			1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} = 2V, I _C = 0			10	μA
DC Current Gain	h _{FE} (1)	V _{CE} = 2V, I _C = 500mA	100※		400※	
	h _{FE} (2)	V _{CE} = 2V, I _C = 5A	40			
Gain-Bandwidth Product	f _T	V _{CE} = 2V, I _C = 500mA		300		MHz
Output Capacitance	c _{ob}	V _{CB} = 10V, f = 1MHz		40		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = 2.5A, I _B = 125mA	0.25	0.7		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	60			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = 1mA, R _{BE} = ∞	45			V
E-B 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}	∕		150	270	ns
Turn-OFF Time	t _{off}	∕		180	350	ns

※ : The 2SC4522 is classified by 500mA h_{FE} as follows :

100 R 200	140 S 280	200 T 400
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Package Dimensions 2045B

(unit : mm)



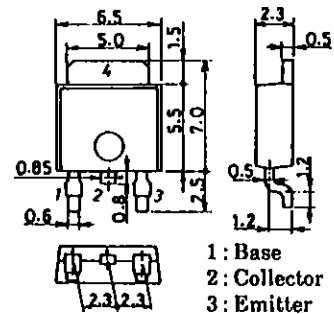
- 1: Base
- 2: Collector
- 3: Emitter
- 4: Collector



SANYO: TP

Package Dimensions 2044B

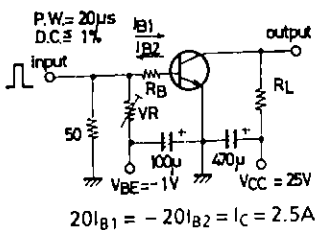
(unit : mm)



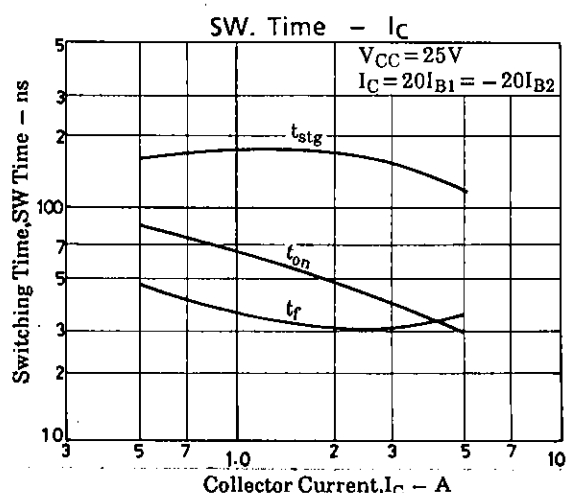
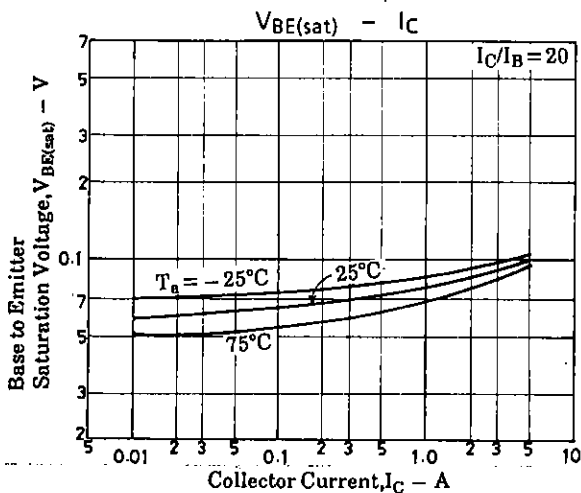
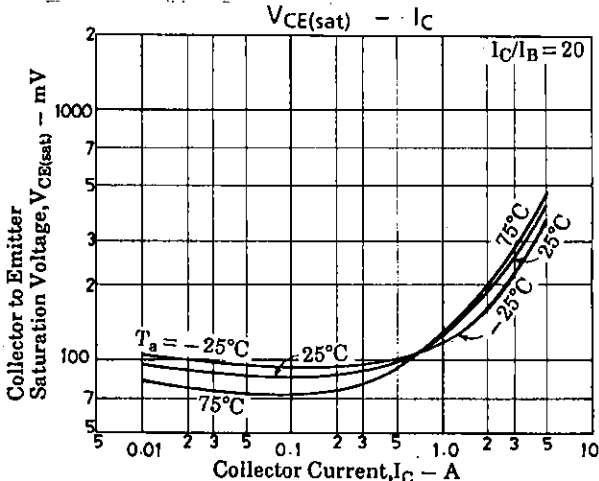
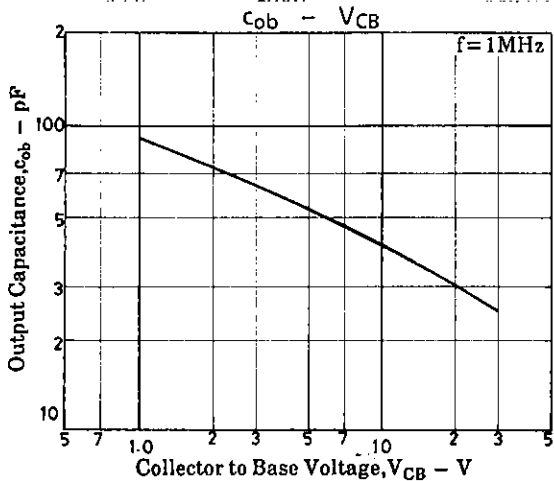
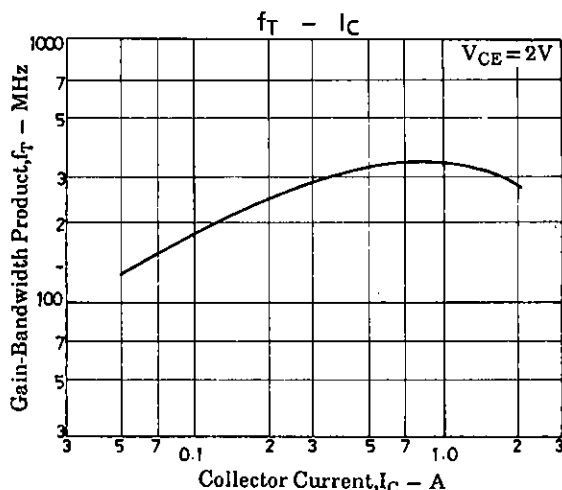
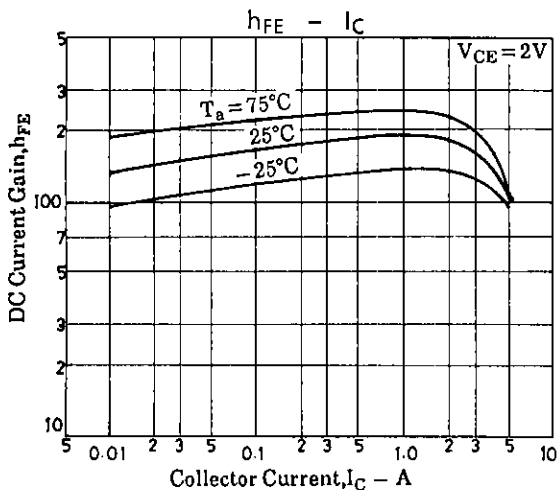
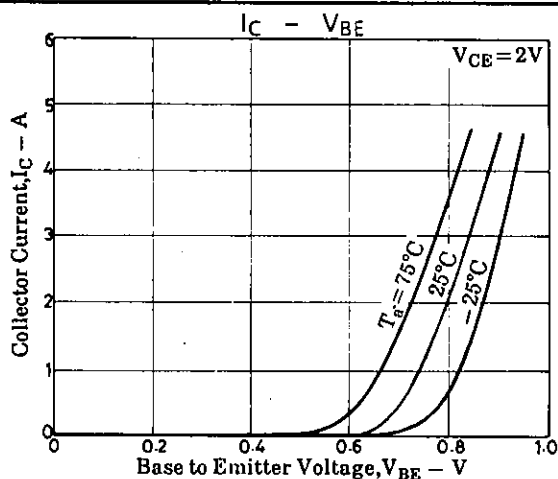
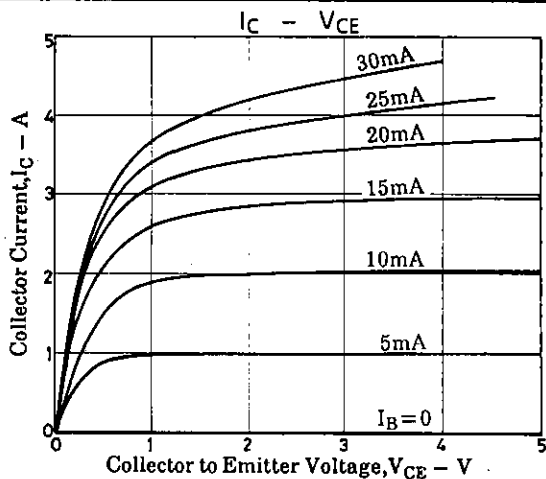
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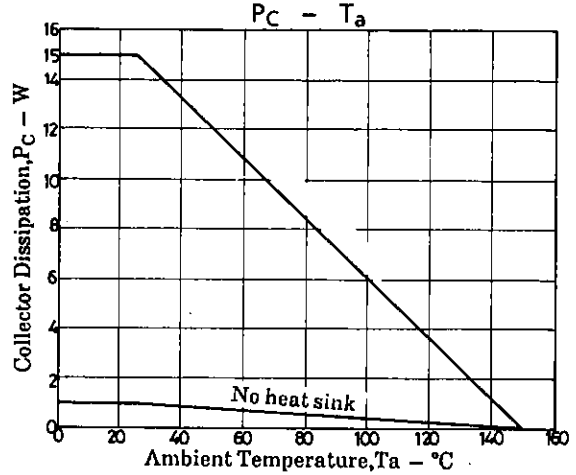
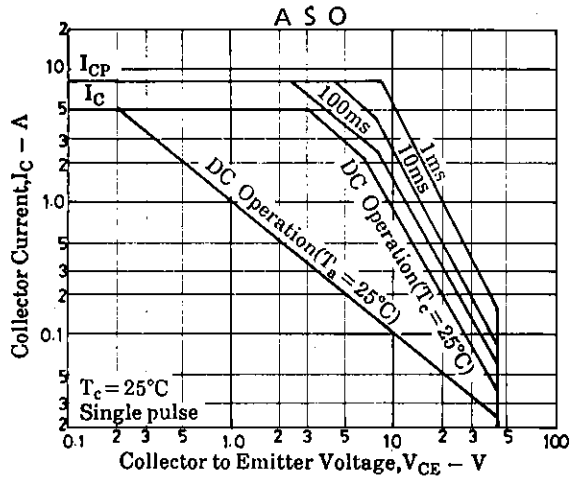
SANYO: TP-FA

Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)





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