

SANYO	No.2926A	2SA1641
	PNP Epitaxial Planar Silicon Transistor	
High-Current Switching Applications		

Features

- Adoption of FBET, MBIT processes.
- Low saturation voltage.
- Fast switching speed.
- Large current capacity.
- Small and slim package making it easy to make 2SA1641-used set smaller

Absolute Maximum Ratings at Ta = 25°C

Collector to Base Voltage	V _{CB0}	-25	V	unit
Collector to Emitter Voltage	V _{CEO}	-20	V	
Emitter to Base Voltage	V _{EBO}	-5	V	
Collector Current	I _C	-8	A	
Collector Current(Pulse)	I _{CP}	-12	A	
Base Current	I _B	-1.5	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} = -20V, I _E = 0			-1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} = -4V, I _C = 0			-1	μA
DC Current Gain	h _{FE} (1)	V _{CE} = -2V, I _C = -500mA	100*		400*	
	h _{FE} (2)	V _{CE} = -2V, I _C = -6A	60			
Gain-Bandwidth Product	f _T	V _{CE} = -2V, I _C = -500mA		200		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = -5A, I _B = -250mA	-220	-400		mV
B-E Saturation Voltage	V _{BE(sat)}	I _C = -5A, I _B = -250mA	-1	-1.3		V
Collector Output Capacitance	c _{ob}	V _{CB} = -10V, f = 1MHz		85		pF
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = -10μA, I _E = 0	-25			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} = ∞	-20			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E = -10μA, I _C = 0	-5			V

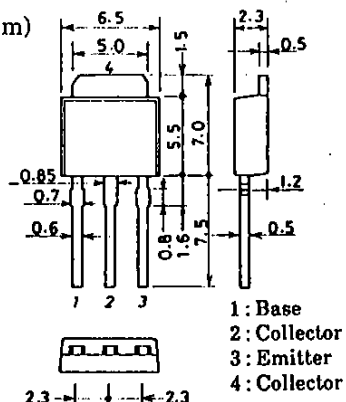
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* : The 2SA1641 is classified by 500mA h_{FE} as follows :

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

(unit : mm)



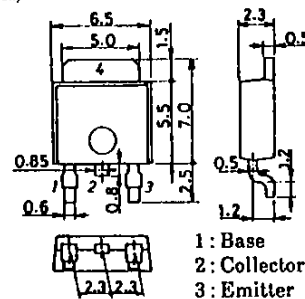
- 1 : Base
- 2 : Collector
- 3 : Emitter
- 4 : Collector

2.3 - 2.3

SANYO : TP

Package Dimensions 2044B

(unit : mm)



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

SANYO : TP-FA

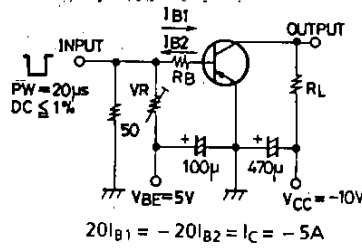
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8219MO/4049MO, TS No.2926-1/3

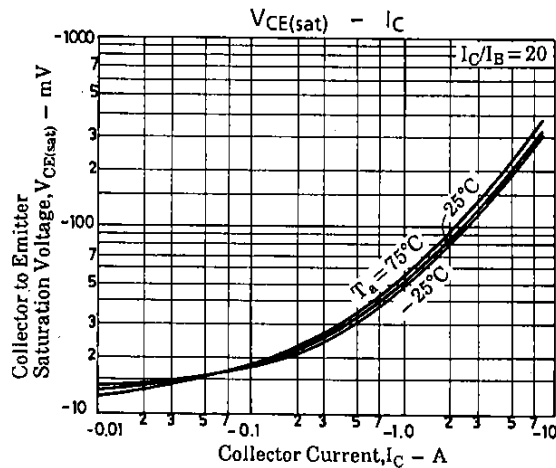
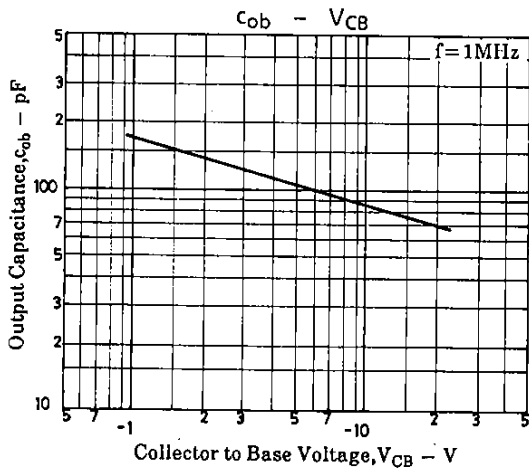
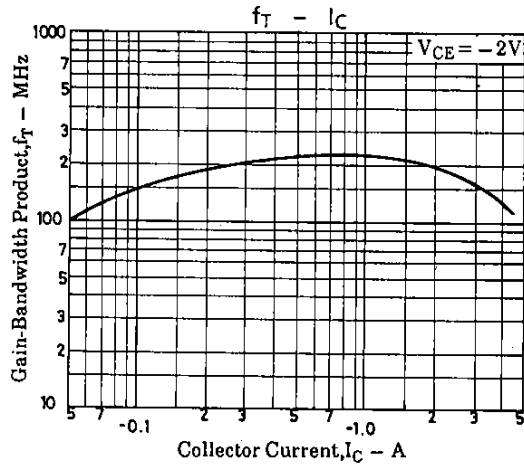
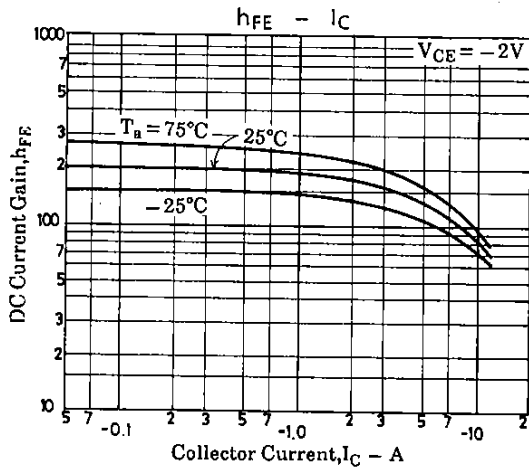
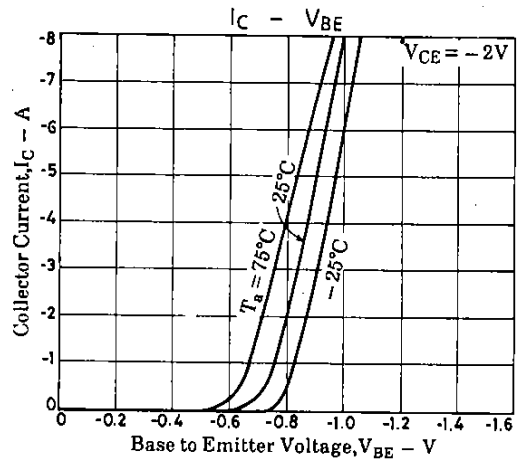
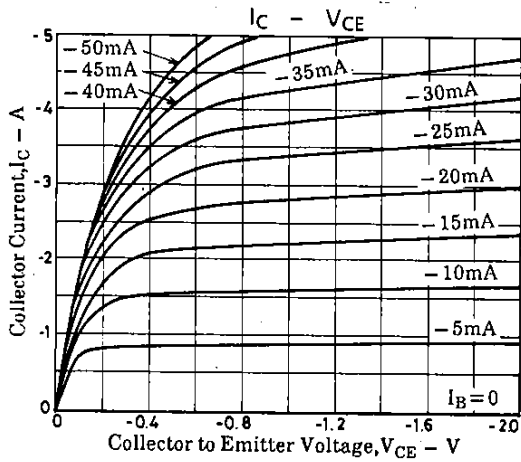
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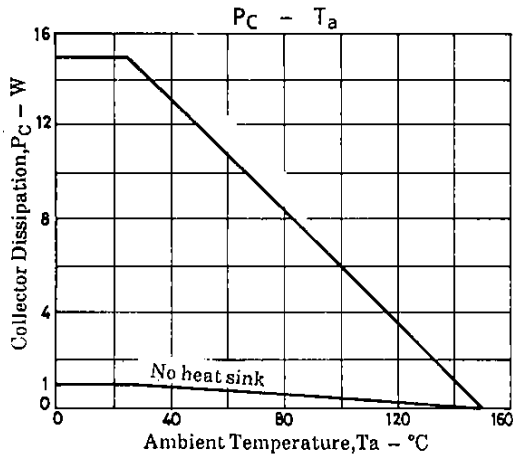
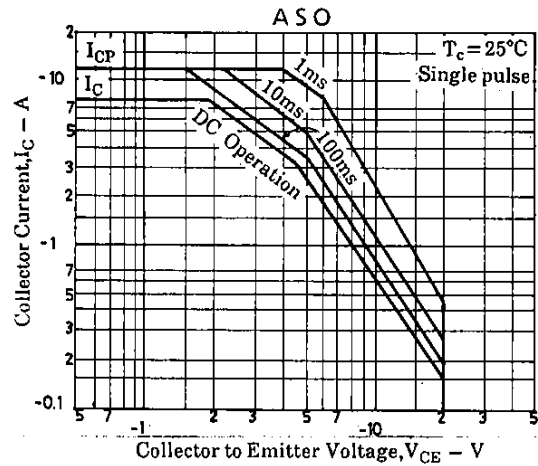
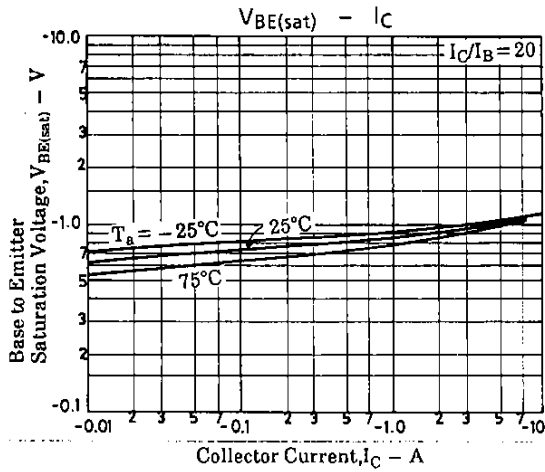
		min	typ	max	unit
Turn-on Time	t_{on}	See specified Test Circuit.		30	ns
Storage Time	t_{stg}	"		200	ns
Fall Time	t_f	"		15	ns

Switching Time Test Circuit



$20I_{B1} = -20I_{B2} = I_C = -5A$ Unit (Resistance : Ω , Capacitance : F)





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