

SANYO	No.2555A	2SB1302
	PNP Epitaxial Planar Silicon Transistor High-Current Switching Applications	

Applications

- . DC-DC converters, motor drivers, relay drivers, lamp drivers

Features

- . Adoption of FBET, MBIT processes
- . Low collector to emitter saturation voltage
- . Large current capacity
- . Fast switching speed
- . Very small size making it easy to provide high-density, small-sized hybrid ICs

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V _{CB0}	-25	V
Collector to Emitter Voltage	V _{CEO}	-20	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	1.3	W
		Mounted on ceramic board (250mm ² x 0.8mm)	
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} =-20V, I _E =0			-500	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-4V, I _C =0			-500	nA
DC Current Gain	h _{FE} (1)	V _{CE} =-2V, I _C =-500mA	100*		400*	
	h _{FE} (2)	V _{CE} =-2V, I _C =-4A	60			
Gain-Bandwidth Product	f _T	V _{CE} =-5V, I _C =-200mA		320		MHz
Output Capacitance	c _{ob}	V _{CB} =-10V, f=1MHz		60		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =-3A, I _B =-60mA	-250	-500		mV
B-E Saturation Voltage	V _{BE(sat)}	I _C =-3A, I _B =-60mA	-1.0	-1.3		V

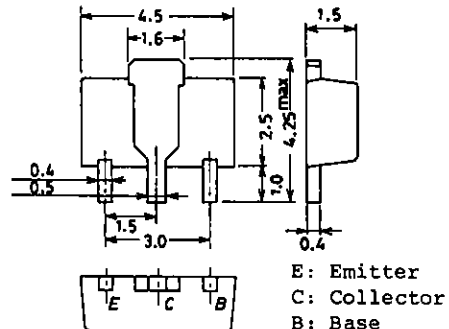
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*: The 2SB1302 is classified by 500mA h_{FE} as follows:

100	R	200	140	S	280	200	T	400
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Marking : BJ
h_{FE} rank : R,S,T

Package Dimensions 2038
(unit:mm)



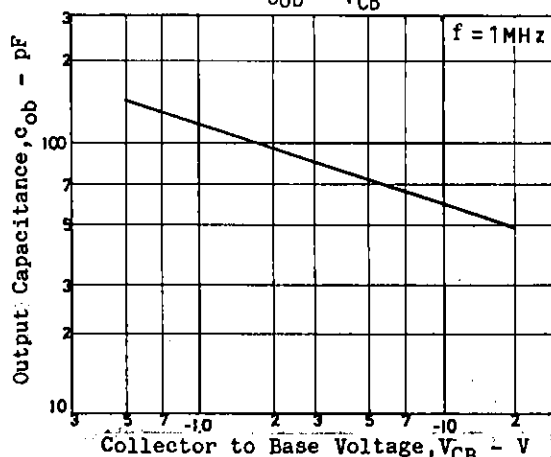
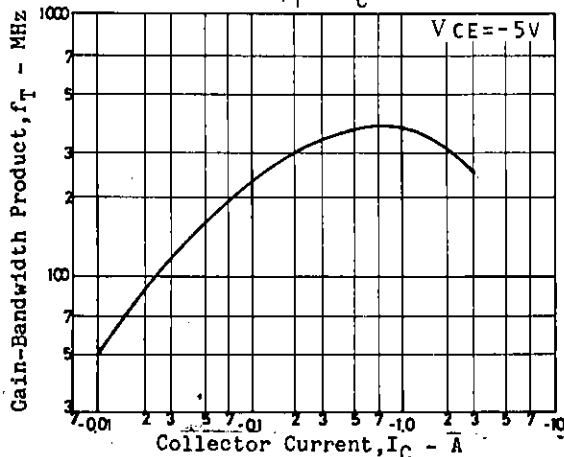
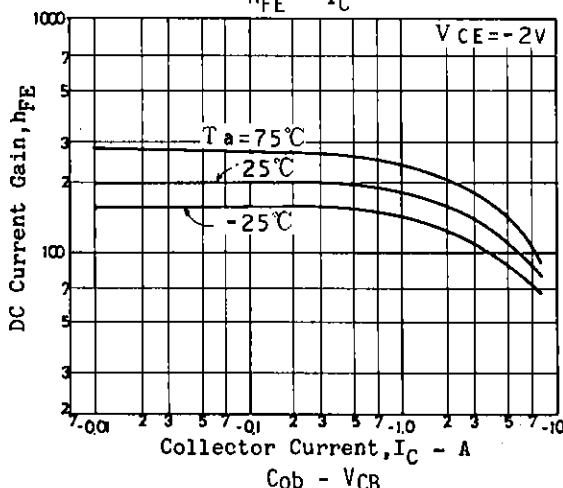
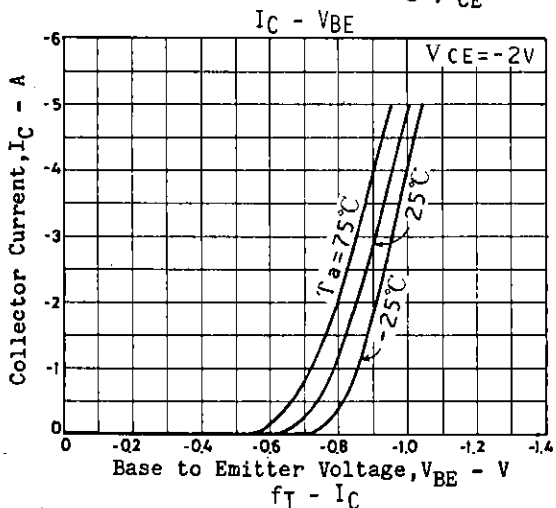
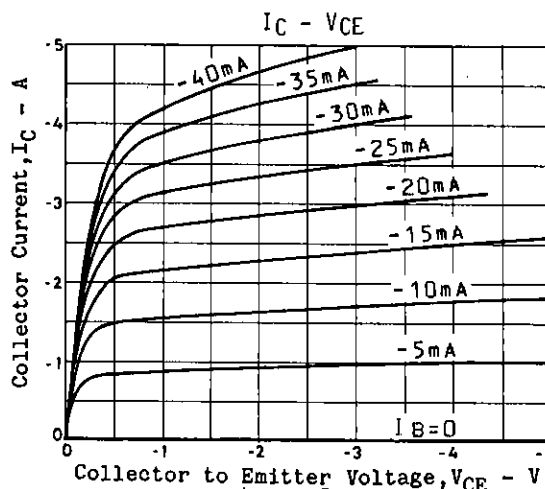
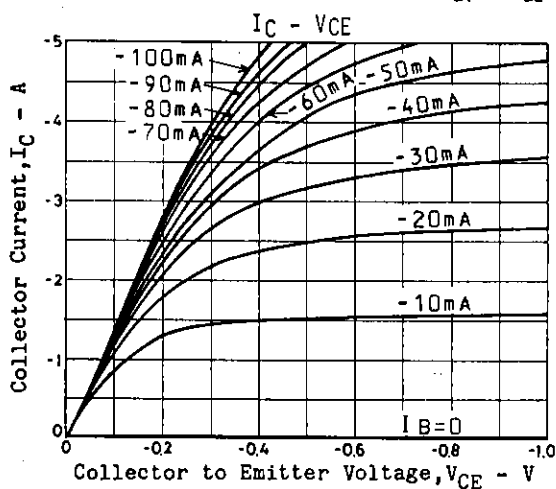
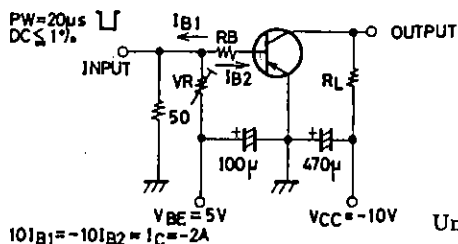
E: Emitter
C: Collector
B: Base

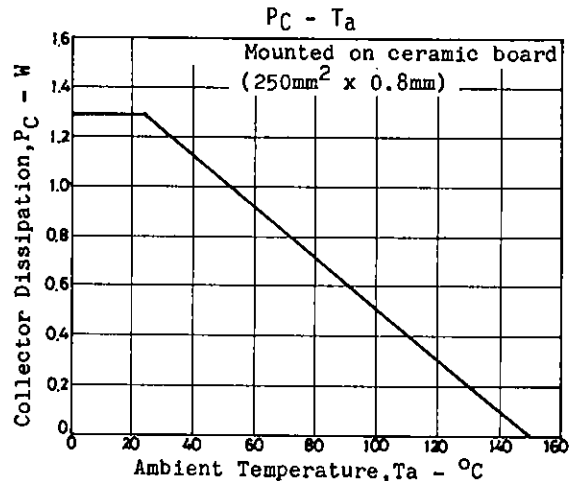
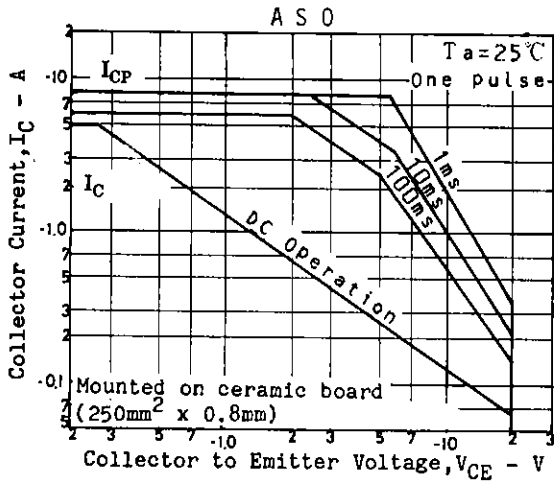
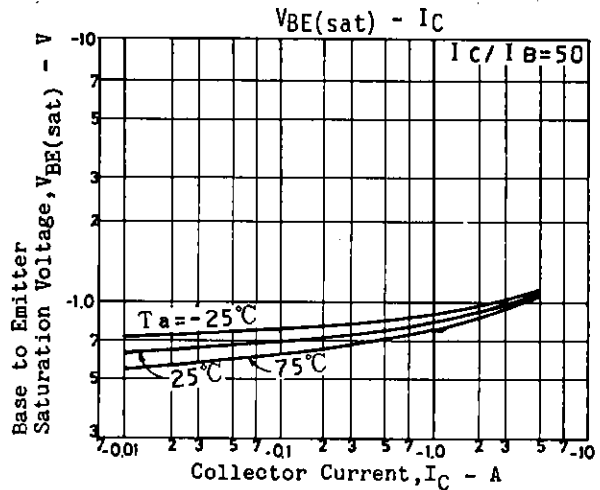
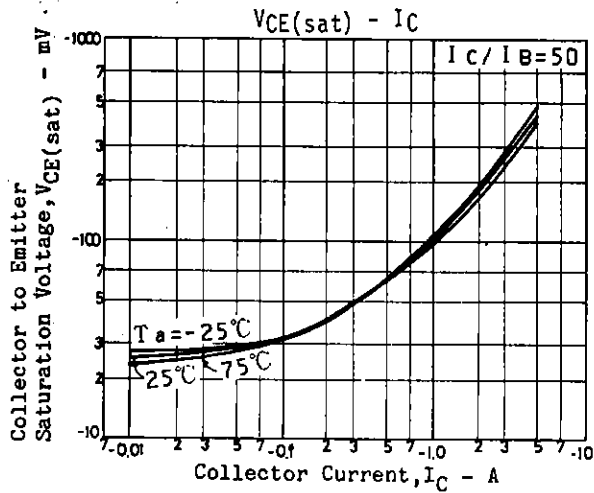
SANYO: PCP
(Bottom View)

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			min	typ	max	unit
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-25			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-20			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Turn-on Time	t_{on}	See specified Test Circuit.		40		ns
Storage Time	t_{stg}	"		200		ns
Fall Time	t_f	"		10		ns

Switching Time Test Circuit





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