

SANYO

No.3365

2SB1471/2SD2223

PNP/NPN Epitaxial Planar Silicon Transistors

Driver Applications

Applications

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control

Features

- Suitable for sets whose height is restricted
- High DC current gain
- Large current capacity and wide ASO

() : 2SB1471

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)70	V
Collector to Emitter Voltage	V _{CE0}	(-)60	V
Emitter to Base Voltage	V _{EB0}	(-)6	V
Collector Current	I _C	(-)4	A
Peak Collector Current	i _{cp}	(-)6	A
Collector Dissipation	P _C	1.65	W
		30	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	- 55 to + 150	°C

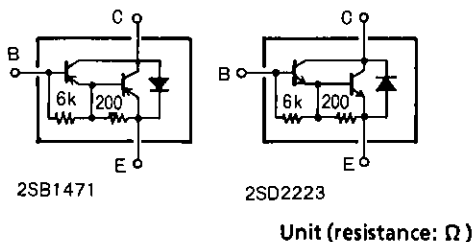
T_c = 25°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)40V, I _E = 0			(-)0.1	mA
Emitter Cutoff Current	I _{EB0}	V _{EB} = (-)5V, I _C = 0			(-)3.0	mA
DC Current Gain	h _{FE}	V _{CE} = (-)2V, I _C = (-)2A	2000	5000		
Gain-Bandwidth Product	f _T	V _{CE} = (-)5V, I _C = (-)2A		20		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)2A, I _B = (-)4mA		0.9	(-)1.5	V
				(-1.0)		V
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)2A, I _B = (-)4mA			(-)2.0	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)5mA, I _E = 0	(-)70			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)50mA, R _{BE} = ∞	(-)60			V

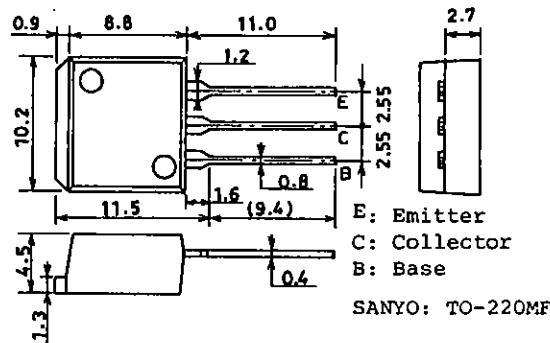
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Electrical Connection



Package Dimensions 2049B

(unit: mm)

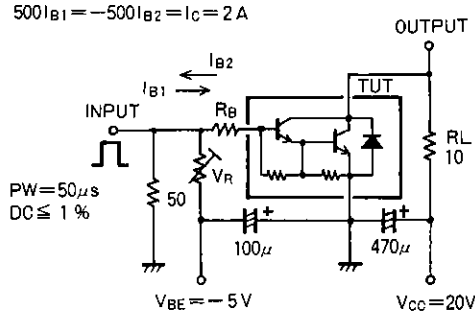


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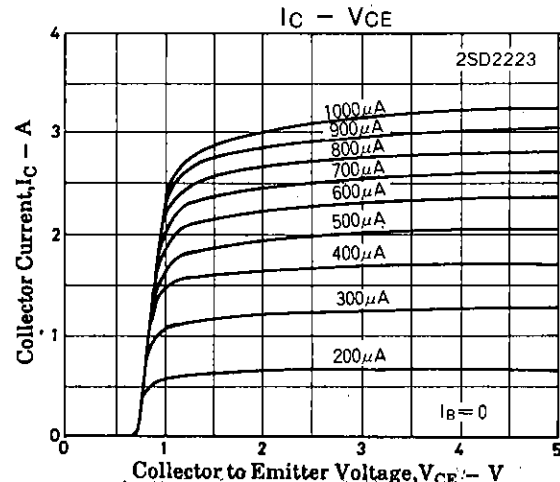
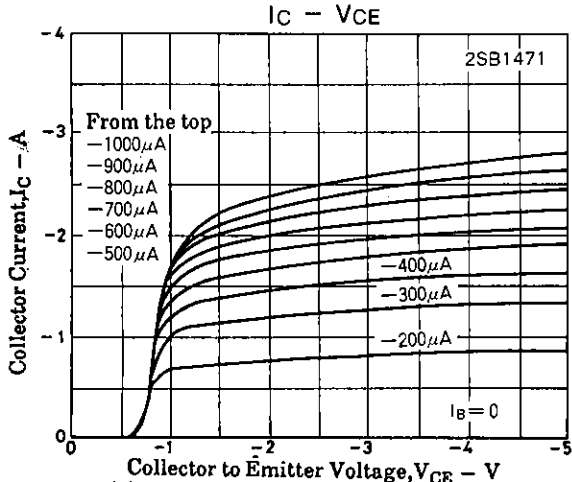
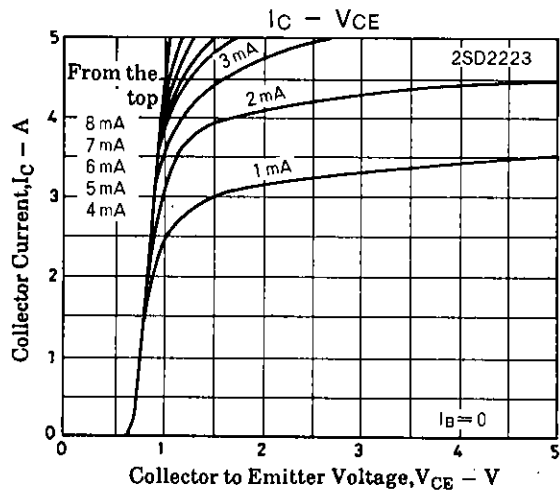
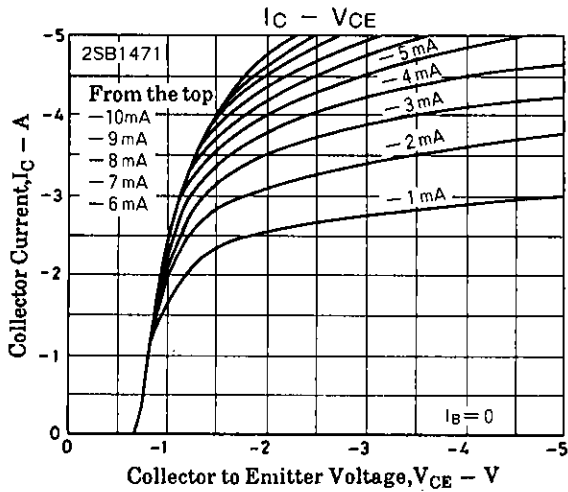
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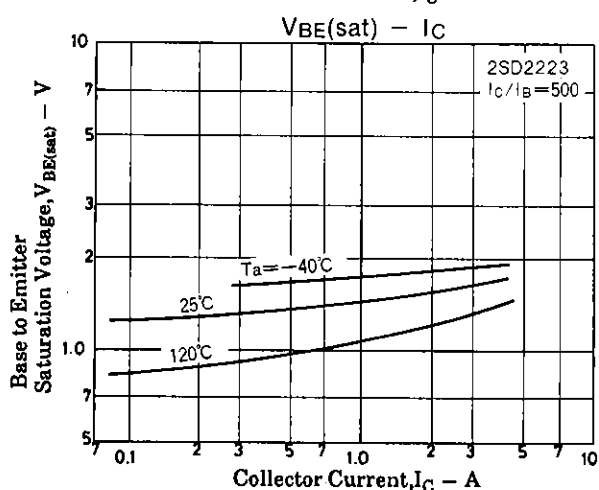
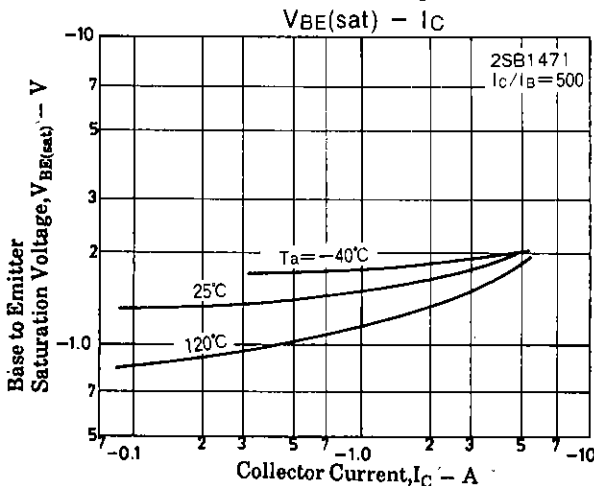
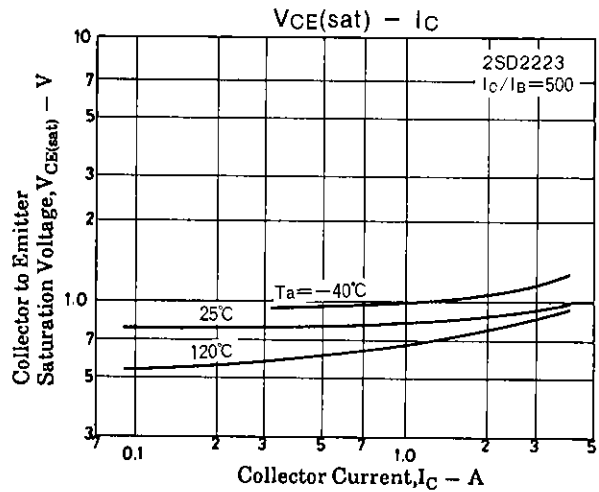
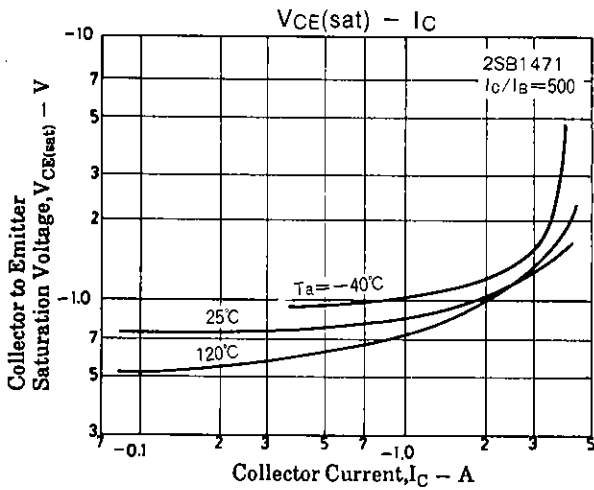
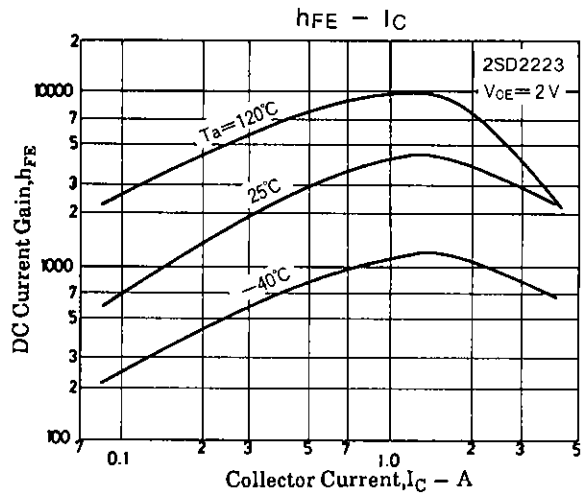
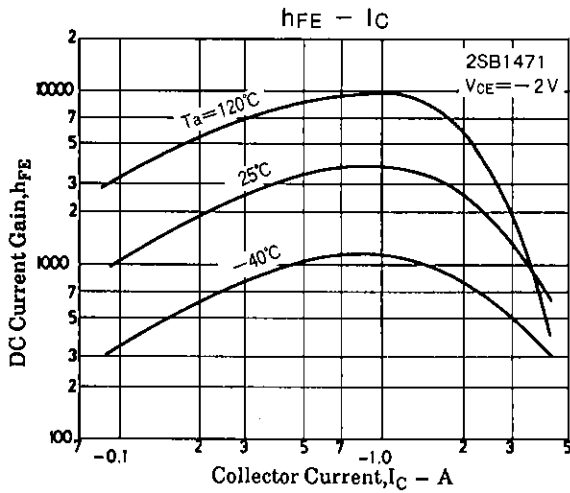
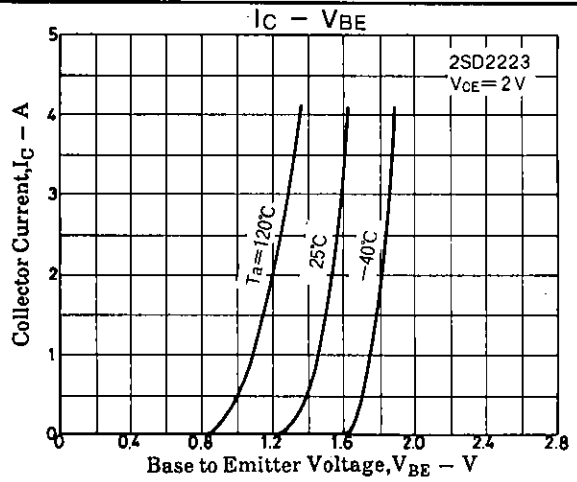
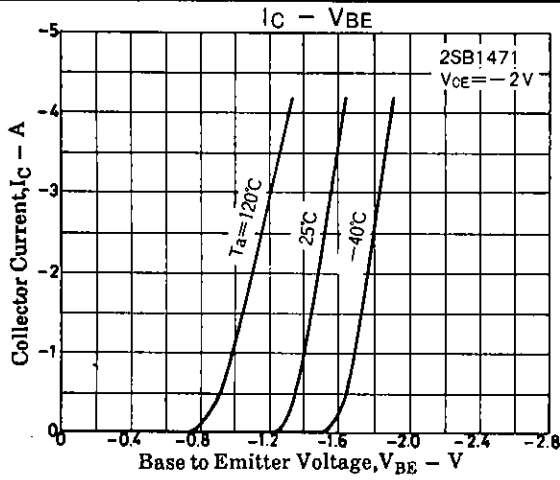
			min	typ	max	unit
Turn-ON time	t_{on}	See specified Test Circuit.		(0.5)0.6		μs
Storage Time	t_{stg}	Same as above.		(1.4)2.7		μs
Fall Time	t_f	Same as above.		(1.2)1.6		μs

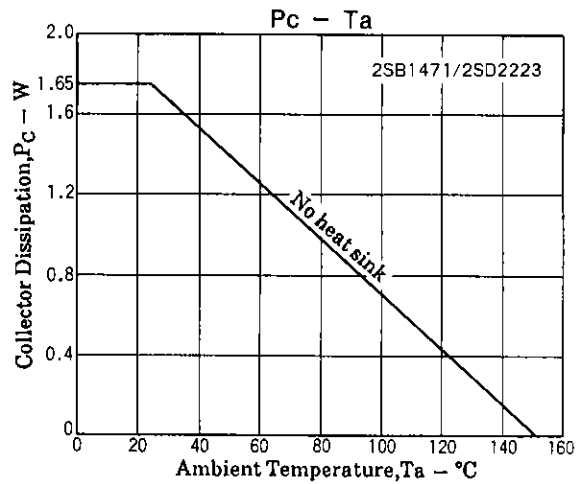
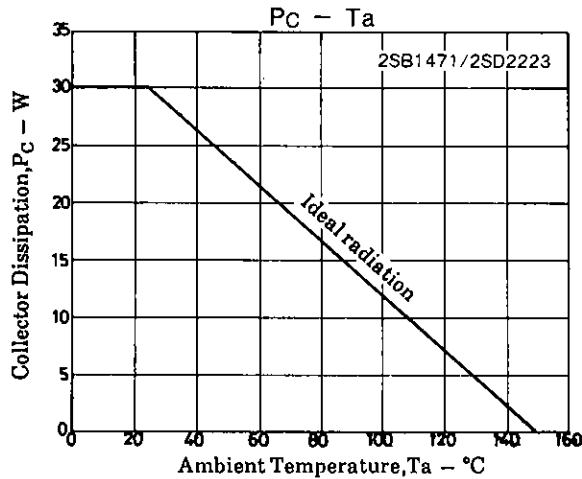
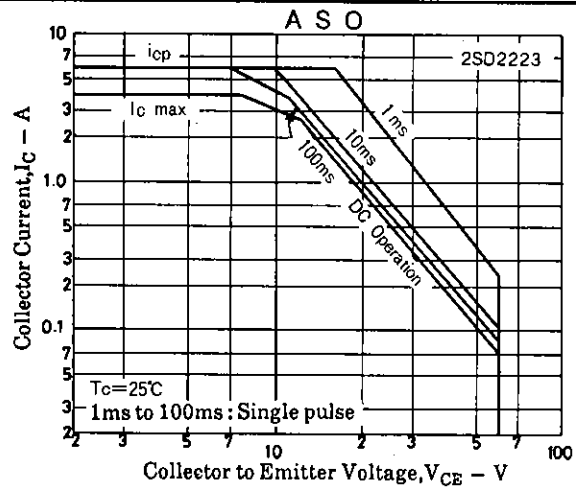
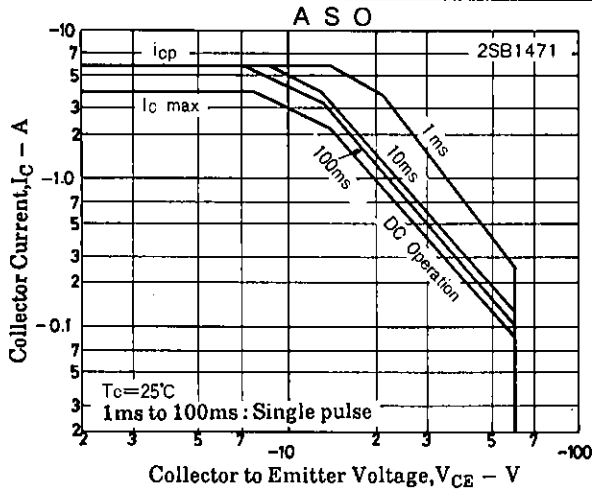
Switching Time Test Circuit
(For PNP, the polarity is reversed.)



Unit (resistance: Ω , capacitance: F)







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