

SANYO	No.2452	2SB1127
		PNP Epitaxial Planar Silicon Transistor
20V/5A Switching Applications		

Applications

- . Strobe, power supplies, relay drivers, lamp drivers

Features

- . Adoption of FBET, MBIT processes
- . Low saturation voltage
- . Large current capacity
- . Fast switching speed

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
Base Current	I _B	-0.5	A
Collector Dissipation	P _C	1	W
		10	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to -150	°C

Electrical Characteristics at Ta=25°C

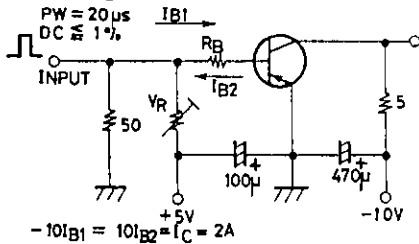
				min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} =-20V, I _E =0				-500	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-4V, I _C =0				-500	nA
DC Current Gain	h _{FE} (1)	V _{CE} =-2V, I _C =-500mA	100*			400*	
	h _{FE} (2)	V _{CE} =-2V, I _C =-4A	60				
Gain-Bandwidth Product	f _T	V _{CE} =-5V, I _C =-200mA		320			MHz
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 2SB1127 is classified by 500mA h_{FE} as follows:

100	R	200	140	S	280	200	T	400
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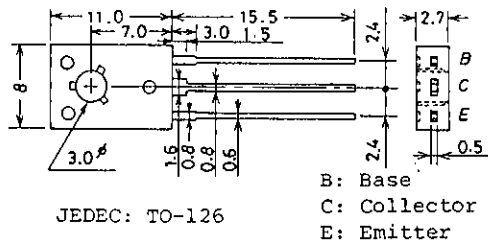
Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2009A

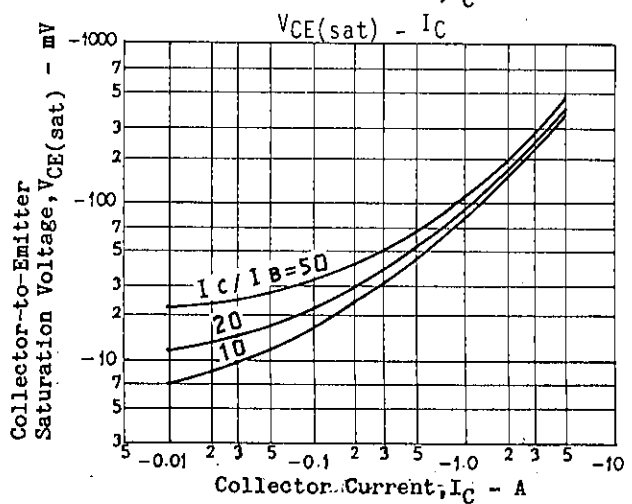
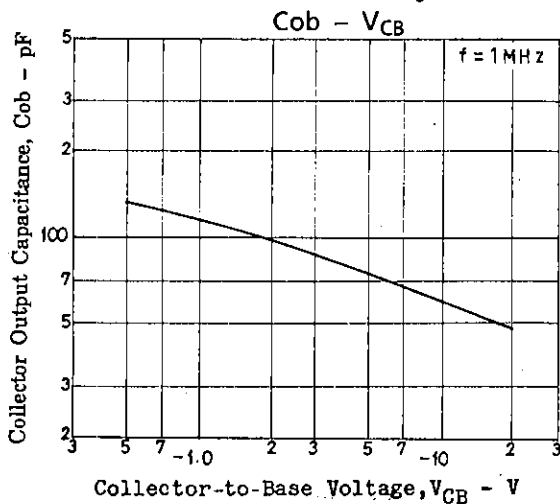
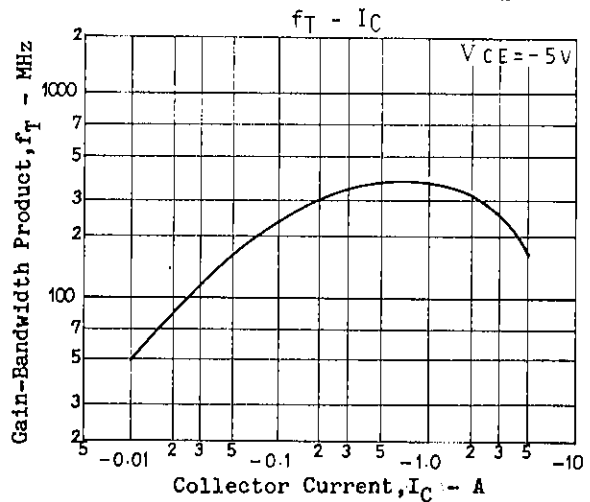
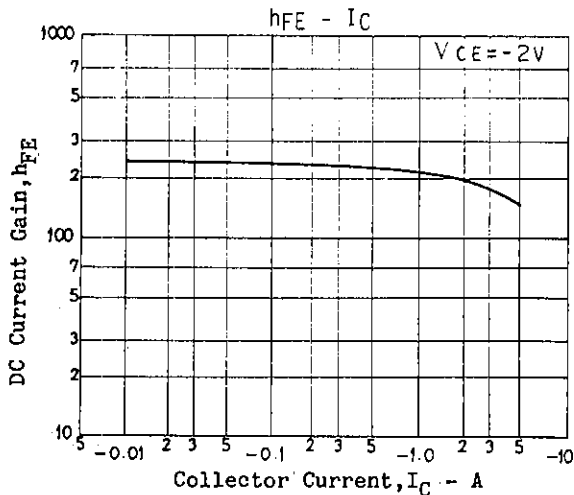
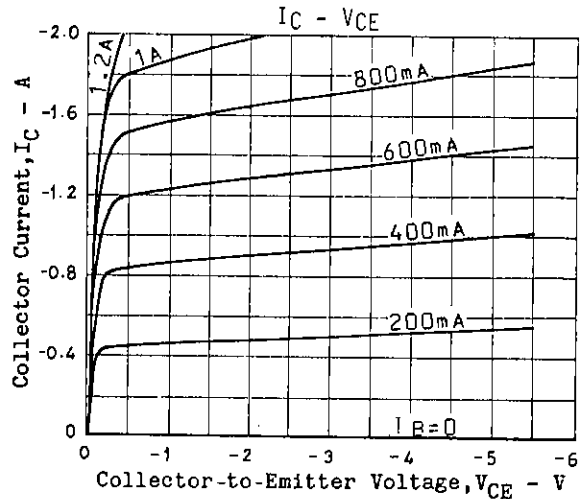
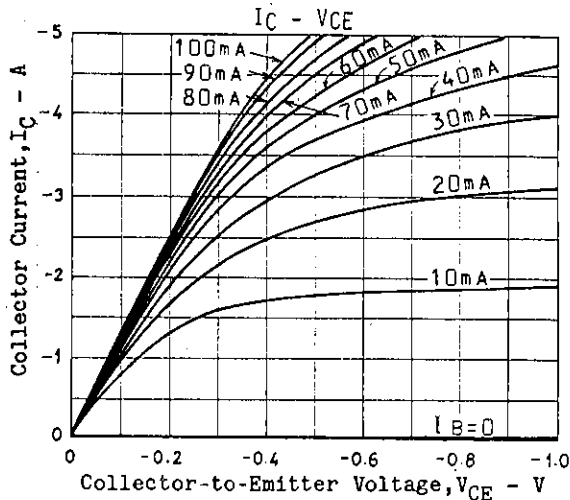
(unit:mm)

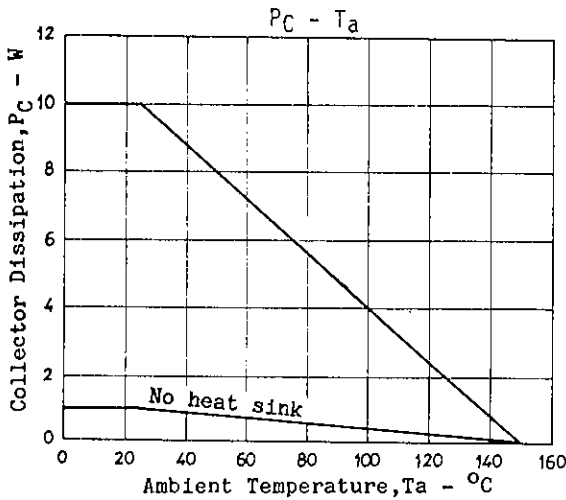
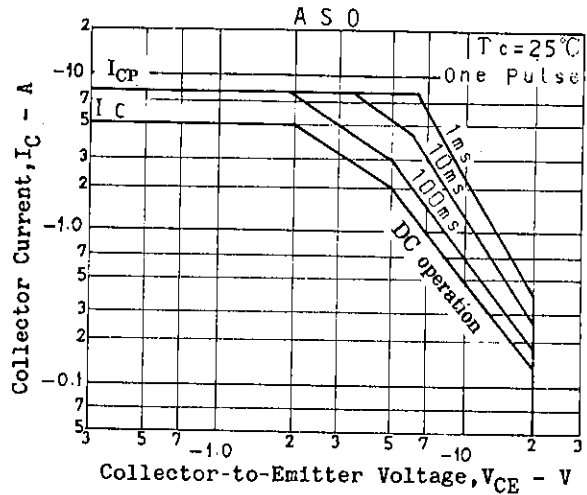
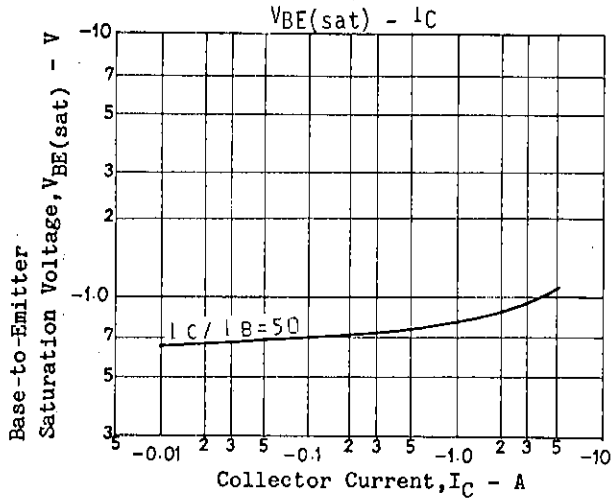


B: Base
C: Collector
E: Emitter

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			min	typ	max	unit
Output Capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$		60		pF
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





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