

<b>SANYO</b>	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 <sub>CB0</sub>	-25 V
Collector-to-Emitter Voltage	V <sub>CEO</sub>	-20 V
Emitter-to-Base Voltage	V <sub>EBO</sub>	-5 V
Collector Current	I <sub>C</sub>	-5 A
Collector Current (Pulse)	I <sub>CP</sub>	-8 A
Base Current	I <sub>B</sub>	-0.5 A
Collector Dissipation	P <sub>C</sub>	1 W
	Tc=25°C	
Junction Temperature	T <sub>j</sub>	10 W
Storage Temperature	T <sub>stg</sub>	150 °C
		-55 to -150 °C

**Electrical Characteristics at Ta=25°C**

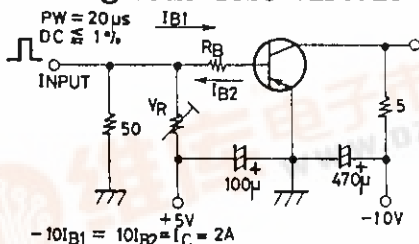
			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =-20V, I <sub>E</sub> =0			-500	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V, I <sub>C</sub> =0			-500	nA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> =-2V, I <sub>C</sub> =-500mA	100*		400*	
	h <sub>FE</sub> (2)	V <sub>CE</sub> =-2V, I <sub>C</sub> =-4A	60			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-200mA		320		MHz
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-3A, I <sub>B</sub> =-60mA	-250	-500		mV
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-3A, I <sub>B</sub> =-60mA	-1.0	-1.3		V

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\*: The 2SB1127 is classified by 500mA h<sub>FE</sub> as follows:

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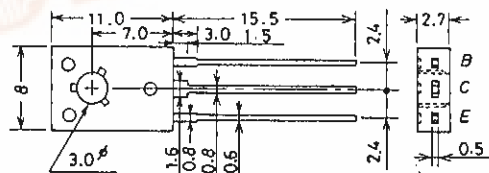
**Switching Time Test Circuit**



Unit (Resistance : Ω, Capacitance : F)

**Package Dimensions 2009A**

(unit:mm)



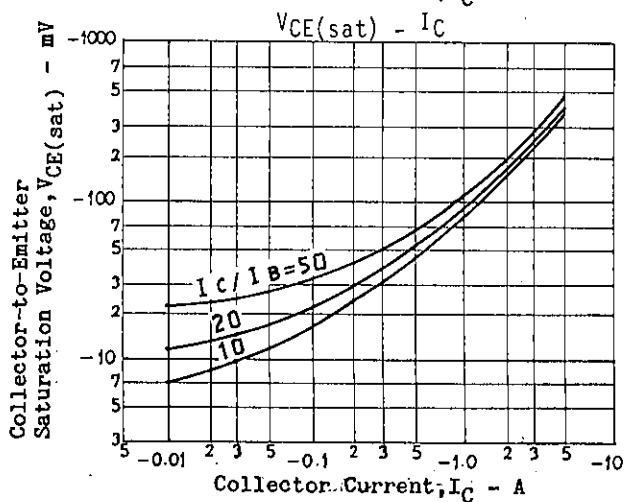
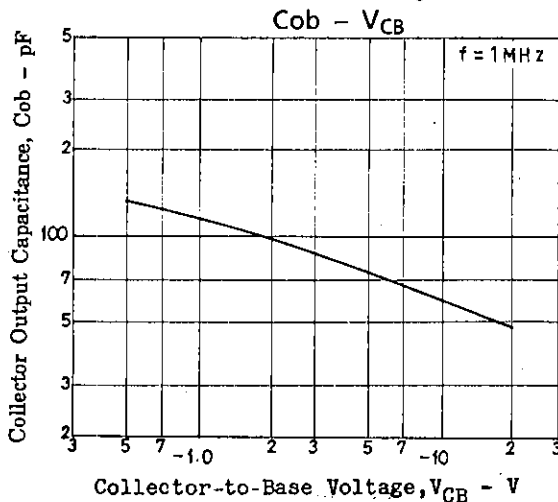
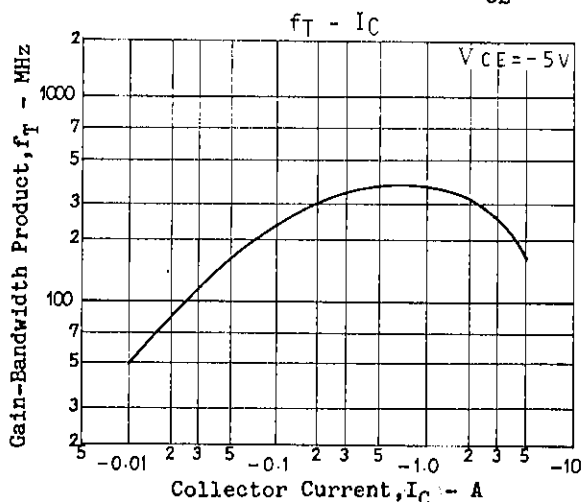
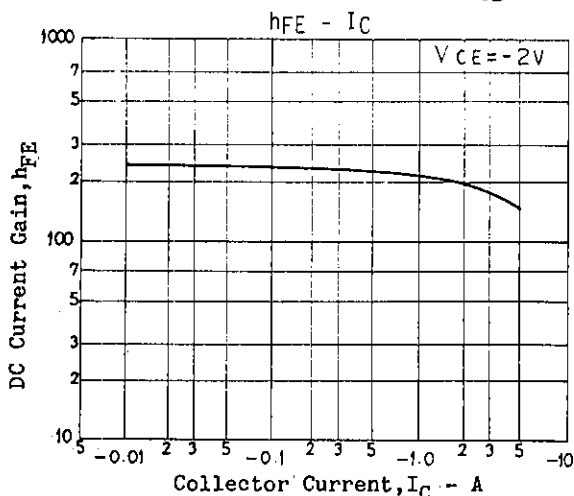
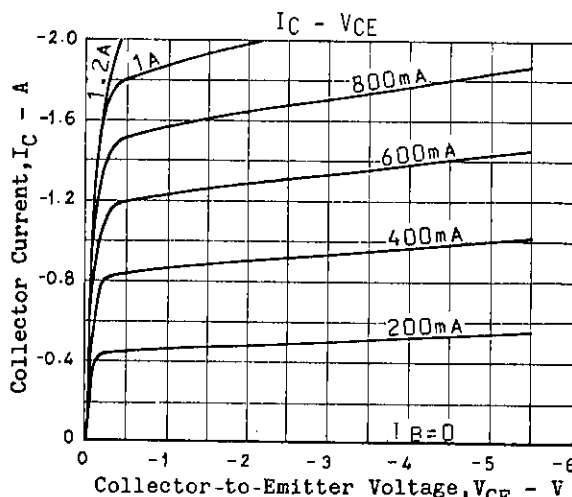
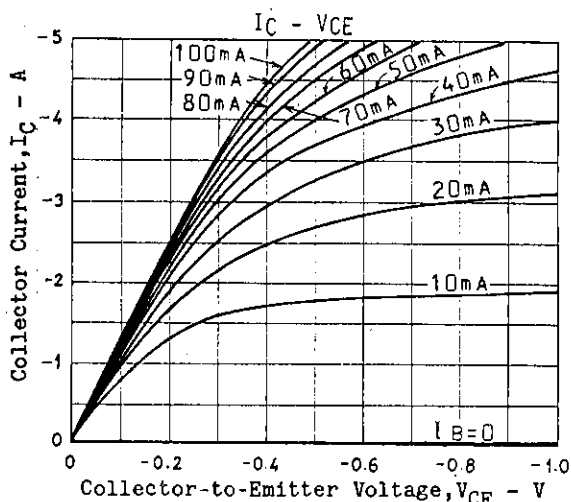
JEDEC: TO-126

B: Base  
C: Collector  
E: Emitter

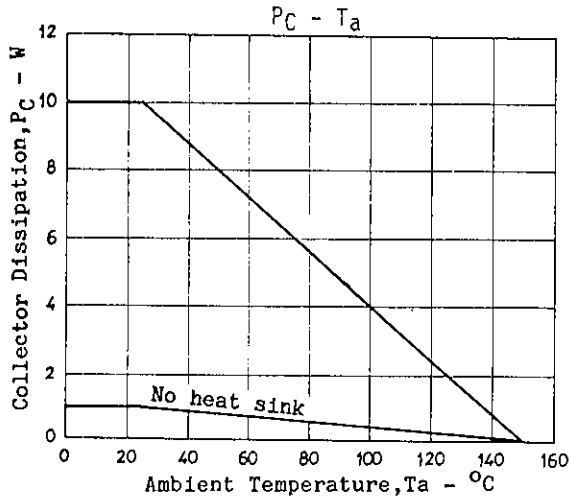
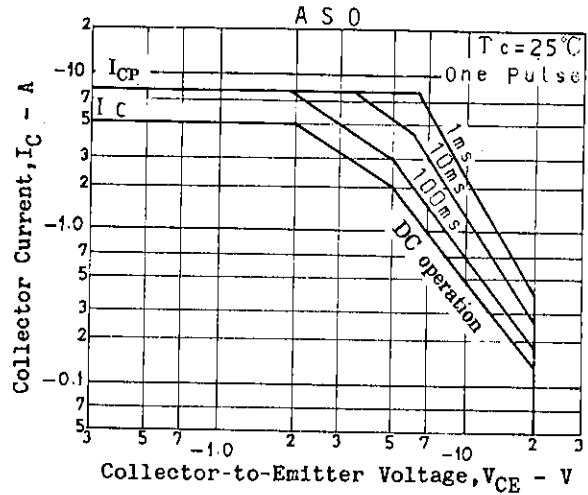
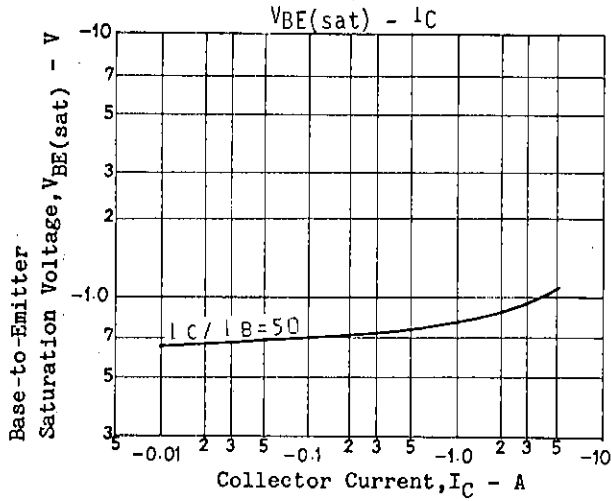


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			min	typ	max	unit
Output Capacitance	$C_{ob}$	$V_{CB} = -10V, f = 1MHz$		60		pF
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-25			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-20			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-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



2SB1127



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