

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

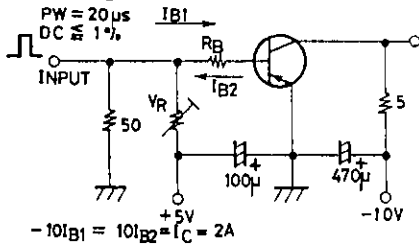
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=-20V, I_E=0$			-500	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-500	nA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=-2V, I_C=-500mA$	100*		400*	
	$h_{FE}(2)$	$V_{CE}=-2V, I_C=-4A$	60			
Gain-Bandwidth Product	f_T	$V_{CE}=-5V, I_C=-200mA$		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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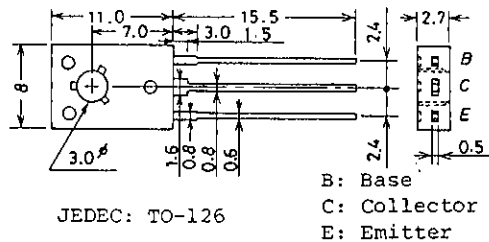
Switching Time Test Circuit



Unit (Resistance : Ω , Capacitance : F)

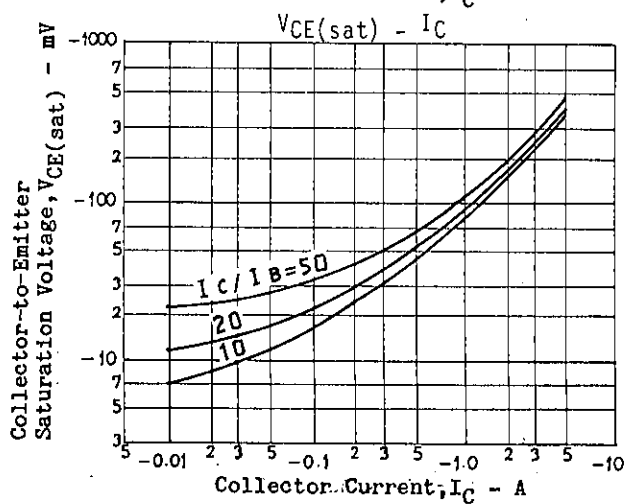
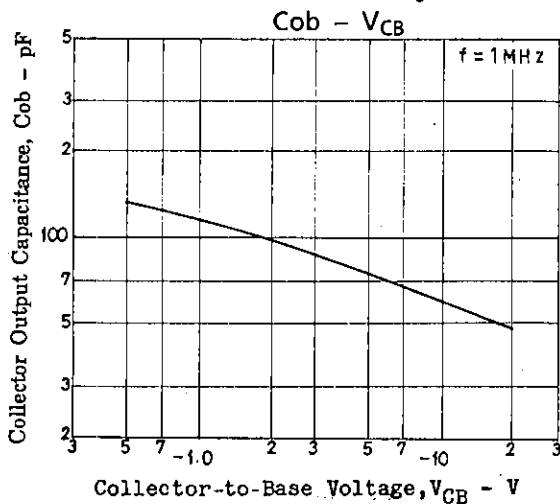
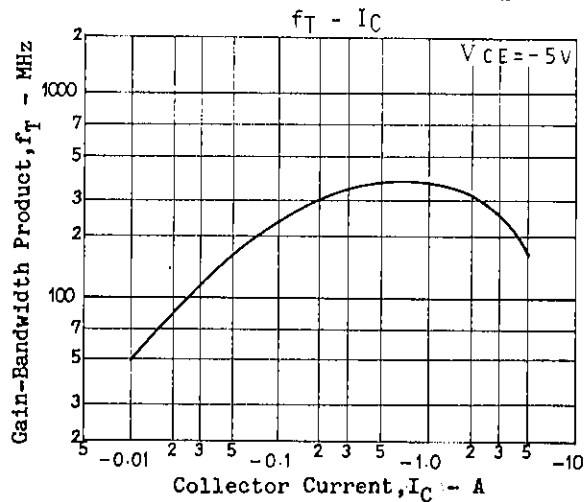
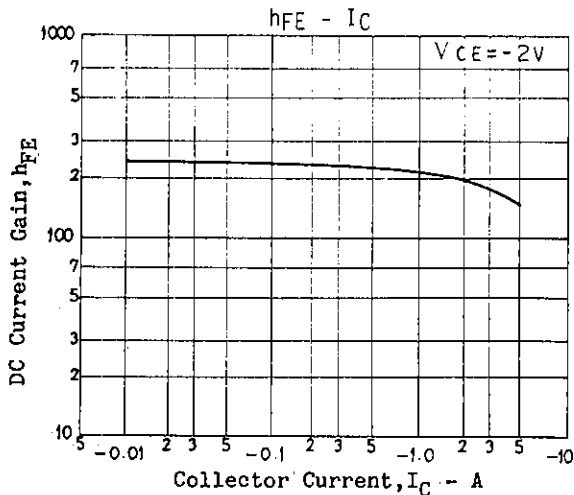
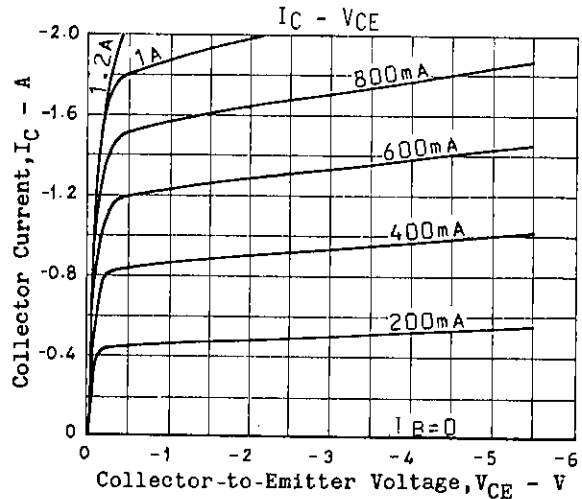
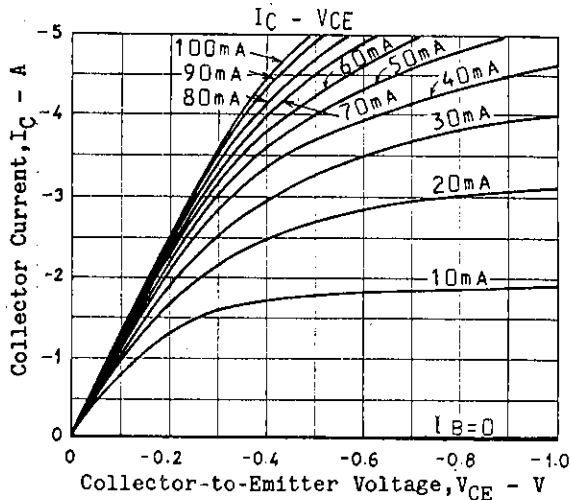
Package Dimensions 2009A

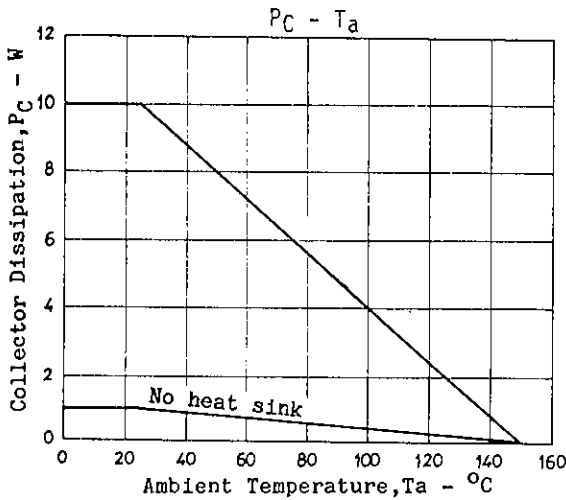
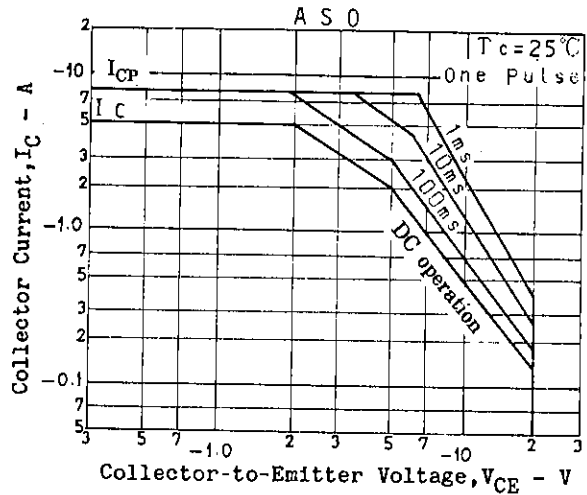
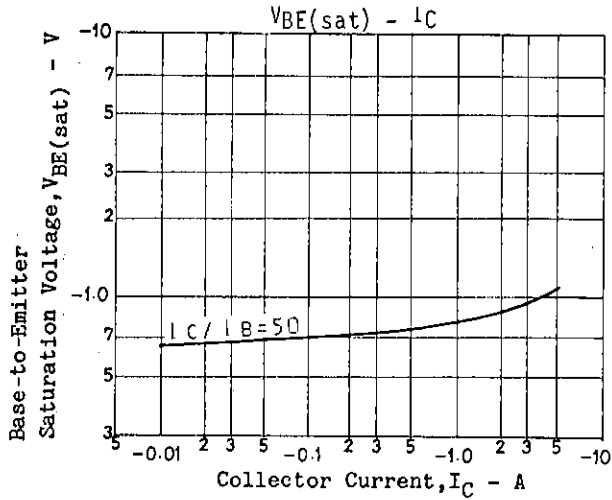
(unit:mm)



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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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