

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 $T_a=25^\circ\text{C}$

			unit
Collector-to-Base Voltage	V_{CB0}	-25	V
Collector-to-Emitter Voltage	V_{CE0}	-20	V
Emitter-to-Base Voltage	V_{EB0}	-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	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to -150	$^\circ\text{C}$

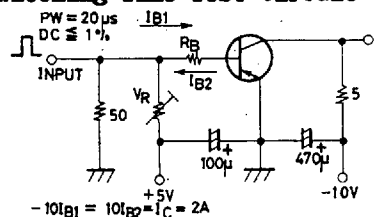
 $T_c=25^\circ\text{C}$ **Electrical Characteristics at $T_a=25^\circ\text{C}$**

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=-20\text{V}, I_E=0$			-500	nA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=-4\text{V}, I_C=0$			-500	nA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=-2\text{V}, I_C=-500\text{mA}$	100*		400*	
	$h_{FE}(2)$	$V_{CE}=-2\text{V}, I_C=-4\text{A}$	60			
Gain-Bandwidth Product	f_T	$V_{CE}=-5\text{V}, I_C=-200\text{mA}$		320		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=-3\text{A}, I_B=-60\text{mA}$	-250	-500		mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=-3\text{A}, I_B=-60\text{mA}$	-1.0	-1.3		V

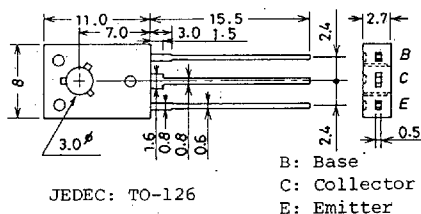
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*: The 2SB1127 is classified by 500mA h_{FE} as follows:

100	R	200	140	S	280	200	T	400
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Switching Time Test Circuit**Package Dimensions 2009A**

(unit:mm)

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

