PNP Epitaxial Planar Silicon Transistor



2SB1140

20V/5A Switching Applications

Applications

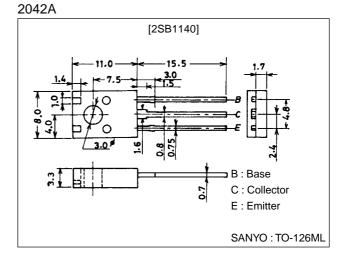
· Strobes, power supplies, relay drivers, lamp drivers.

Features

- · Adoption of FBET, MBIT processes.
- · Low saturation voltage.
- · Large current cpacity.
- · Short switching time.

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		-25	V
Collector-to-Emitter Voltage	VCEO		-20	V
Emitter-to-Base Voltage	VEBO		-5	V
Collector Current	IC		-5	Α
Collector Current (Pulse)	ICP		-8	Α
Base Current	Ι _Β		-0.5	Α
Collector Dissipation	PC		1.5	W
		Tc=25°C	10	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

	Ratings			Unit
	min	typ	max	Unit
			-500	nA
			-500	nA
	100*		400*	
	60			
		320		MHz
		60		pF
-			60	60

* : The 2SB1140 is classified by 500mA h_{FE} as follows : 100 R 200 140 S 280

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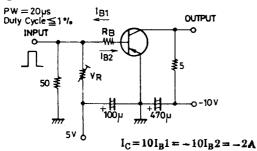
200 T 400

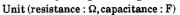
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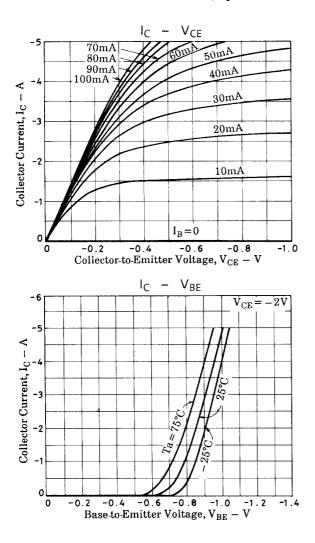
SANYO Electric Co., Ltd. Semiconductor Bussiness Headquaters TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

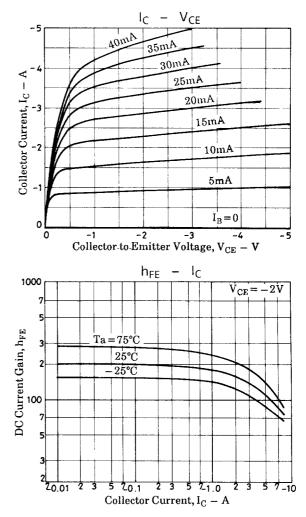
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-3A, I _B =-60mA		-250	-500	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-3A, I _B =-60mA		-1.0	-1.3	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =(-)10µA, I _E =0	-25			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =(−)1mA, R _{BE} =∞	-20			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =(-)10μA, I _C =0	-5			V
Turn-ON Time	ton	See specified Test Circuti.		40		ns
Storage Time	^t stg	See specified Test Circuit.		200		ns
Fall Time	t _f	See specified Test Circuit.		10		ns

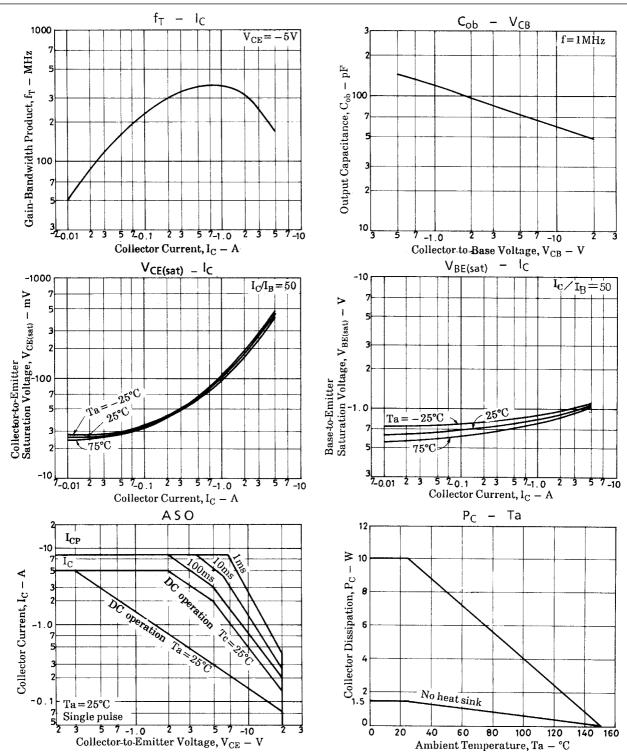
Switching Time Test Circuit











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