

# Power Transistor (–80V, –1A)

2SB1260 / 2SB1181 / 2SB1241

## ●Features

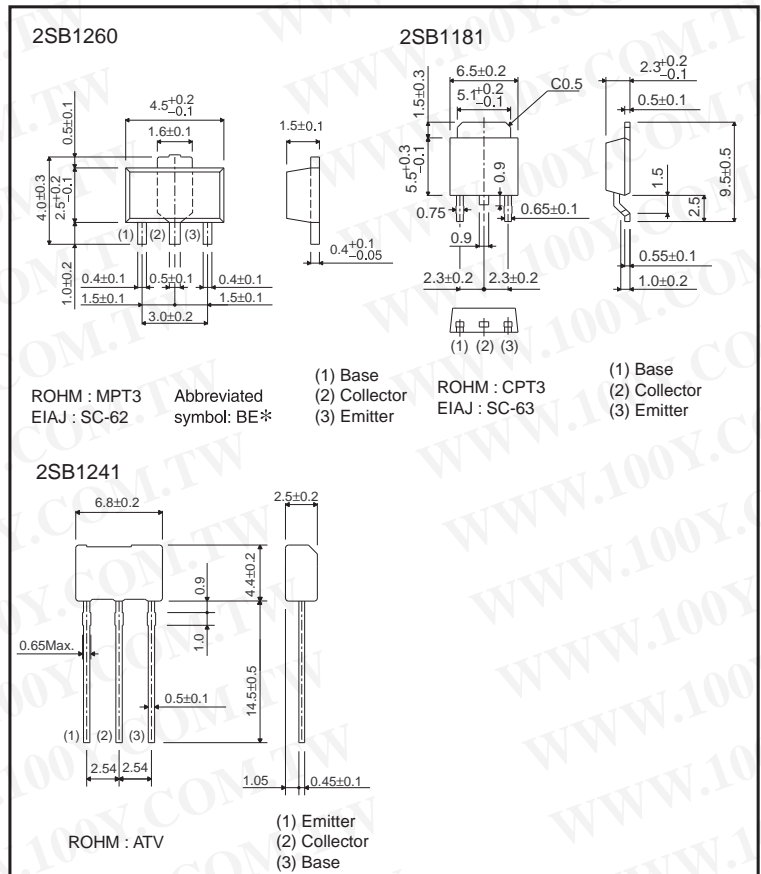
- 1) High breakdown voltage and high current.  
 $BV_{CEO} = -80V$ ,  $I_C = -1A$
  - 2) Good  $h_{FE}$  linearity.
  - 3) Low  $V_{CE(sat)}$ .
- Complements the 2SD1898 / 2SD1863 / 2SD1733.

## ●Structure

Epitaxial planar type  
 PNP silicon transistor

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## ●Dimensions (Unit : mm)



\* Denotes  $h_{FE}$

## ●Absolute maximum ratings ( $T_a = 25^\circ C$ )

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	–80	V
Collector-emitter voltage	$V_{CEO}$	–80	V
Emitter-base voltage	$V_{EBO}$	–5	V
Collector current	$I_C$	–1	A (DC)
	$I_{CP}$	–2 *1	A (Pulse)
Collector power dissipation	2SB1260	$P_C$	0.5
			2 *2
			1 *3
			10
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	–55 to +150	$^\circ C$

\*1 2SB1260 :  $P_W = 20ms$  duty=1/2

2SB1241 : Single pulse,  $P_W = 100ms$

\*2 2SB1260 : When mounted on a 40×40×0.7 mm ceramic board.

\*3 2SB1241 : Printed circuit board, 1.7mm thick, collector copper plating 100mm<sup>2</sup> or larger.

## ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV <sub>CB0</sub>	-80	-	-	V	I <sub>C</sub> = -50μA
Collector-emitter breakdown voltage	BV <sub>CE0</sub>	-80	-	-	V	I <sub>C</sub> = -1mA
Emitter-base breakdown voltage	BV <sub>EB0</sub>	-5	-	-	V	I <sub>E</sub> = -50μA
Collector cutoff current	I <sub>CBO</sub>	-	-	-1	μA	V <sub>CB</sub> = -60V
Emitter cutoff current	I <sub>EBO</sub>	-	-	-1	μA	V <sub>EB</sub> = -4V
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	-	-	-0.4	V	I <sub>C</sub> /I <sub>B</sub> = -500mA/-50mA
DC current transfer ratio	h <sub>FE</sub>	120	-	390	-	V <sub>CE</sub> = -3V, I <sub>C</sub> = -0.1A
		120	-	390	-	
Transition frequency	f <sub>T</sub>	-	100	-	MHz	V <sub>CE</sub> = -10V, I <sub>E</sub> =50mA, f=100MHz
Output capacitance	C <sub>ob</sub>	-	20	-	pF	V <sub>CB</sub> = -10V I <sub>E</sub> =0A f=1MHz
		-	25	-	pF	

●Packaging specifications and h<sub>FE</sub>

Type	h <sub>FE</sub>	Package	Taping		
		Code	TL	TV2	T100
		Basic ordering unit (pieces)	2500	2500	1000
2SB1260	QR		-	-	○
2SB1241	QR		-	○	-
2SB1181	QR		○	-	-

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h<sub>FE</sub> values are classified as follows :

Item	Q	R
h <sub>FE</sub>	120 to 270	180 to 390

## ●Electrical characteristic curves

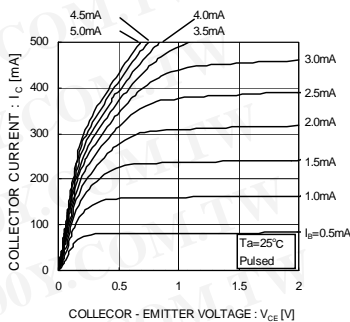


Fig.1 Ground Emitter Output Characteristics

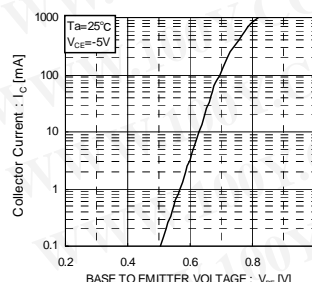


Fig.2 Grounded Emitter Propagation Characteristics

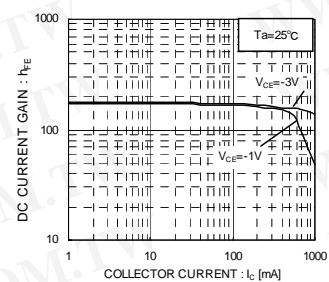


Fig.3 DC Current Gain vs Collector Current

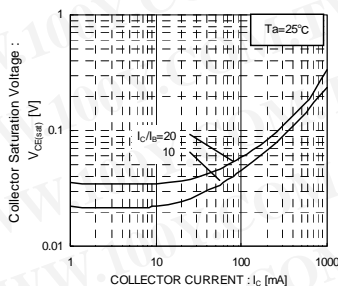


Fig.4 Collector-Emitter Saturation Voltage vs Collector Current

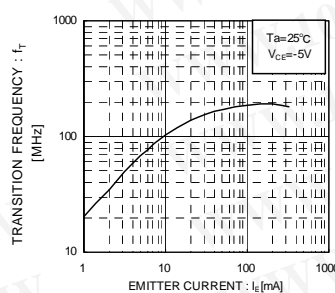
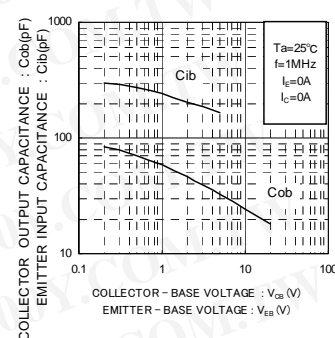


Fig.5 Transition Frequency vs Emitter Current

Fig.6 Emitter Input Capacitance vs. Emitter-Base Voltage  
Collector Output Capacitance vs. Collector-Base

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