

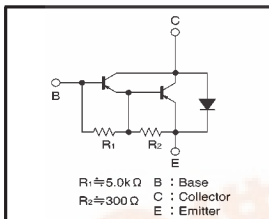
Power Transistor (—120V, —6A)

2SB1340

●Features

- 1) Darlington connection for high DC current gain.
- 2) Built-in resistor between base and emitter.
- 3) Built-in damper diode.
- 4) Complements the 2SD1889.

●Circuit diagram



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	—120	V
Collector-emitter voltage	V _{CEs}	—120	V
Emitter-base voltage	V _{EB0}	—6	V
Collector current	I _c	—6 —10	A (DC) A (Pulse) *
Collector power dissipation	P _c	2 30	W W (T _c =25°C)
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	—55~+150	°C

* Single pulse, P_w=10ms

●Packaging specifications and hFE

Type	2SB1340
Package	TO-220FP
hFE	2k~20k
Code	—
Basic ordering unit (pieces)	500

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	—120	—	—	V	I _c =—50 μA
Collector-emitter breakdown voltage	BV _{CE0}	—120	—	—	V	I _c =—5mA
Collector cutoff current	I _{CB0}	—	—	—100	μA	V _{CB} =—120V
Emitter cutoff current	I _{EB0}	—	—	—3	mA	V _{EB} =—5V
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	—1.5	V	I _c /I _e =—3A/—6mA
DC current transfer ratio	h _{FE}	2k	—	20k	—	V _{CE} /I _c =—3V/—2A
Transition frequency	f _T	—	12	—	MHz	V _{CE} =—5V, I _e =0.5A, f=10MHz
Output capacitance	C _{ob}	—	70	—	pF	V _{CB} =—10V, I _e =0A, f=1MHz

*1 Measured using pulse current.

*2 Transition frequency of the device.

(96-650-B88)

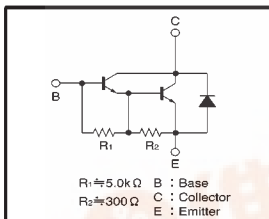
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Collector-base breakdown voltage	BV _{CB0}	120	—	—	V	I _c =50 μA
Collector-emitter breakdown voltage	BV _{CE0}	120	—	—	V	I _c =5mA
Collector cutoff current	I _{CB0}	—	—	100	μA	V _{CB} =120V
Emitter cutoff current	I _{EB0}	—	—	3	mA	V _{EB} =5V
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	1.5	V	I _c /I _e =3A/6mA
DC current transfer ratio	h _{FE}	2k	—	20k	—	V _{CE} /I _c =3V/2A
Transition frequency	f _T	—	40	—	MHz	V _{CE} =5V, I _e =—0.2A, f=10MHz
Output capacitance	C _{ob}	—	50	—	pF	V _{CB} =10V, I _e =0A, f=1MHz

*1 Measured using pulse current.

*2 Transition frequency of the device.

(96-765-D89)