

2SB1668

Transistors

Power Transistor (–100V, –8A)

2SB1668

●Features

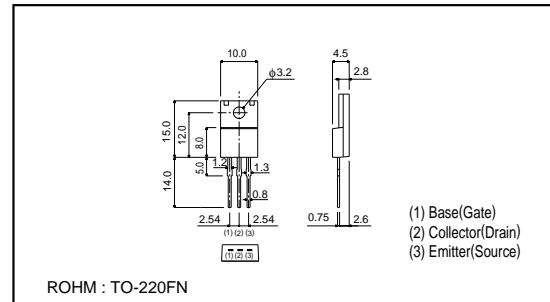
- 1) Darlington connection for high DC current gain.
- 2) Built-in resistor between base and emitter.
- 3) Built-in damper diode.
- 4) Complements the 2SD2607.

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	–100	V
Collector-emitter voltage	V _{CE0}	–100	V
Emitter-base voltage	V _{EB0}	–7	V
Collector current	I _C	–8	A (DC)
		–10	A (Pulse) *
Power dissipation	P _C	2	W
		30	W (T _C = 25°C)
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	–55 – +150	°C

* Single pulse, P_w = 100ms

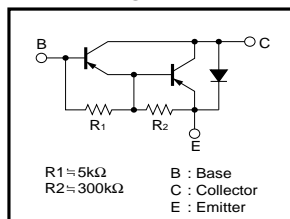
●External dimensions (Units : mm)



●Packaging specifications and hFE

Type	2SB1668
Package	TO-220FN
hFE	1k–20k
Code	–
Basic ordering unit (pieces)	500

●Circuit diagram



●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	–100	–	–	V	I _C = –50μA
Collector-emitter breakdown voltage	BV _{CE0}	–100	–	–	V	I _C = –5mA
Collector cutoff current	I _{CB0}	–	–	–10	μA	V _{CB} = –100V
Emitter cutoff current	I _{EB0}	–	–	–3	mA	V _{EB} = –5V
Collector-emitter saturation voltage	V _{CE(sat)}	–	–1.0	–1.5	V	I _C /I _B = –3A/–6mA
DC current transfer ratio	h _{FE}	1000	10000	20000	–	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}	–	90	–	pF	V _{CB} = –10V, I _E = 0A, f = MHz

*1 Measured using pulse current.

*2 Transition frequency of the device.

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