

Power Transistor (100V, 8A)

2SD2607

●Features

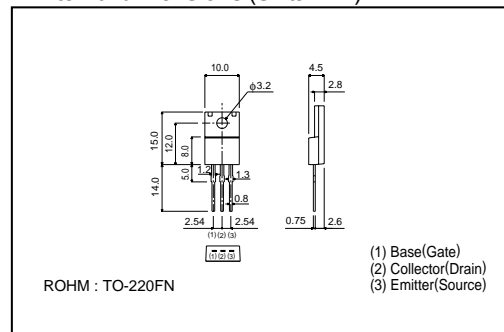
- 1) Darlington connection for high DC current gain.
- 2) Built-in resistor between base and emitter.
- 3) Built-in damper diode.
- 4) Complements the 2SB1668.

●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 = 10ms

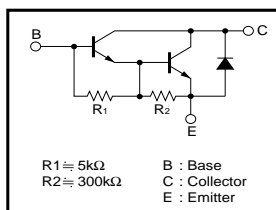
●External dimensions (Units: mm)



●Packaging specifications and hFE

Type	2SD2607
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)}	-	-	1.5	V	I _c /I _b = 3A/6mA *1
DC current transfer ratio	h _{FE}	1000	-	20000	-	V _{CE} /I _c = 3V/2A *1
Transition frequency	f _T	-	40	-	MHz	V _{CE} = 5V, I _E = -0.2A, f = 10MHz *2
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.