Transistors

For Power amplification (100V, 8A)

2SD2607

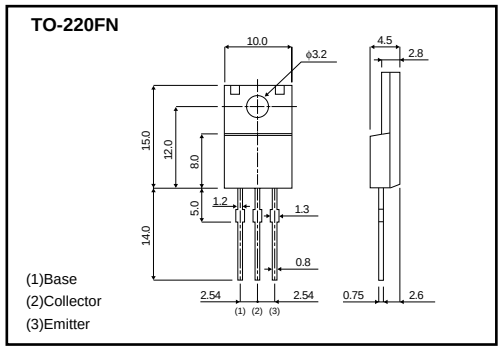
●Structure

NPN Silicon Epitaxial Planar Transistor
(Darlington connection)

●Features

1) High h_{FE} by darlington connection.
2) Built-in resistors between base and emitter.
3) Damper diode is incorporated.

●External dimensions (Unit : mm)



●Applications

Relay drive
Motor drive

●Complements

PNP	NPN
2SB1668	2SD2607

●Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Collector-base voltage		V_{CBO}	100	V
Collector-emitter voltage		V_{CEO}	100	V
Emitter-base voltage		V_{EBO}	7	V
Collector current	DC	I_C	8	A
	Pulse	I_{CP}	10	A *1
Power dissipation		P_C	2	W(Ta=25°C)
			30	W(Tc=25°C)
Junction temperature		Tj	150	°C
Range of storage temperature		Tstg	−55 to +150	°C

*1 t=100ms

●Packaging specifications and h_{FE}

Type	Package	Taping
	Code	–
	Basic ordering unit (pieces)	500
2SD2607		○

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	100	–	–	V	I_C=5mA
Collector-base breakdown voltage	BV_{CBO}	100	–	–	V	I_C=50μA
Emitter-base breakdown voltage	BV_{EBO}	7	–	–	V	I_E=5mA
Collector cut-off current	I_{CBO}	–	–	10	μA	V_{CB}=100V
Emitter cut-off current	I_{EBO}	–	–	3	mA	V_{EB}=5V
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	1.5	V	I_C/I_B=3A/6mA
DC current gain	h_{FE}	1	–	20	K	V_{CE}=3V, I_C=2A
Transition frequency	f_T	–	40	–	MHz	V_{CE}=5V, I_E=−0.2A, f=10MHz
Collector output capacitance	Cob	–	70	–	pF	V_{CB}=10V, I_E=0A, f=1MHz

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