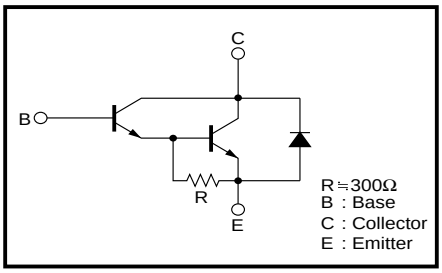
Power Transistor (80V, 4A)

2SD2618

●Features

1) Darlington connection for a high h_{FE}.
2) Built-in resistor between base and emitter.
3) Built-in damper doide.
4) Complements the 2SB1676.

●Circuit diagram



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	80	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	4	A (DC)
	I_{CP}	6	A (t = 100ms)
Collector power dissipation	P_C	2	W
		30	W (Tc = 25°C)
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55~+150	°C

●Packaging specifications and h_{FE}

Type	2SD2618
Package	TO-220FN
h_{FE}	1k~10k
Code	-
Basic ordering unit (pieces)	500

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	80	-	-	V	I_C = 50μA
Collector-emitter breakdown voltage	BV_{CEO}	80	-	-	V	I_C = −1mA
Collector cutoff current	I_{CBO}	-	-	100	μA	V_{CB} = 80V
Emitter cutoff current	I_{EBO}	-	-	10	μA	V_{EB} = 5V
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	1.5	V	I_C/I_B = 2A/4mA *1
DC current transfer ratio	h_{FE}	1000	-	10000	-	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	Cob	-	35	-	pF	V_{CB} = 10V , I_E = 0A , f = 1MHz

*1 Measured using pulse current. *2 Transition frequency of the device.