

Transistors

For Motor / Relay drive (-120V, -6A)

2SB1674

●Structure

PNP Silicon Epitaxial Planar Transistor
(Darlington connection)

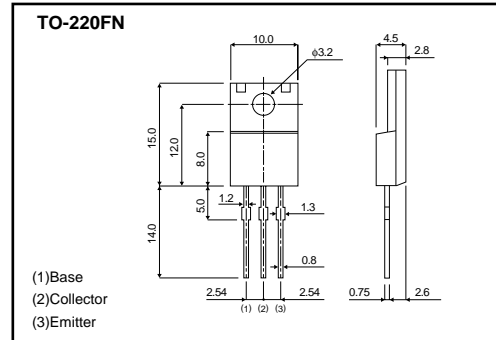
●Features

- 1) Darlington connection, high h_{FE} .
- 2) Resistor inbetween base-emitter.
- 3) Built-in damper diode.

●Applications

Relay drive
Motor drive

●External dimensions (Unit : mm)



●Complements

PNP	NPN
2SB1674	2SD2615

●Absolute maximum ratings (Ta=25°C)

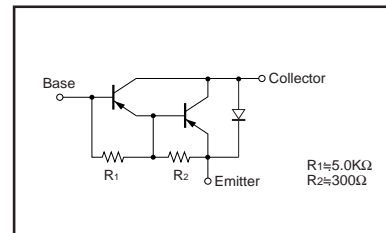
Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	-120	V
Collector-emitter voltage	V_{CE0}	-120	V
Emitter-base voltage	V_{EB0}	-7	V
Collector current	DC	I_c	-6 A
	Pulse	I_{cP}	-10 A *1
Collector power dissipation	P_c	2	W(Ta=25°C)
		30	W(Tc=25°C)
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

*1 $t=100ms$

●Packaging specifications and h_{FE}

Type	h_{FE}	Package	Taping
		Code	-
2SB1674		Basic ordering unit (pieces)	500
			○

●Equivalent circuit



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CE0}	-120	-	-	V	$I_c=-5mA$
Collector-base breakdown voltage	BV_{CB0}	-120	-	-	V	$I_c=-50\mu A$
Emitter-base breakdown voltage	BV_{EB0}	-7	-	-	V	$I_E=-5mA$
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	$I_c/I_B=-3A/-6mA$ *1
DC current gain	h_{FE}	2k	-	20k	-	$V_{CE}=-3V, I_c=-2A$ *1
Transition frequency	f_T	-	12	-	MHz	$V_{CE}=-5V, I_E=0.5A, f=10MHz$ *2
Collector output capacitance	C_{ob}	-	70	-	pF	$V_{CB}=-10V, I_E=0A, f=1MHz$

*1 Pulse test *2 Transition frequency of the device

Notes

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