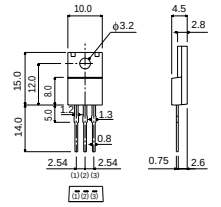
Power Transistor (80V, 4A)

2SC5574

●Features

1) Low saturation voltage.
   (Typ. $V_{CE(sat)}$ = 0.3V at I_C / I_B =2 / 0.2A)
2) Excellent DC current gain characteristics.
3) Pc = 30W (Tc = 25°C)
4) Wide SOA (safe operating area).
5) Complements the 2SA2017.

●External dimensions (Units : mm)



ROHM : TO-220FN

(1) Base(Gate)
(2) Collector(Drain)
(3) Emitter(Source)

●Absolute maximum ratings (Ta = 25°C)

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

*Single pulse, Pw=100ms

●Packaging specifications and h_{FE}

Type	2SC5574
Package	TO-220FN
h_{FE}	EFG
Code	−
Basic ordering unit (pieces)	500

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	100	−	−	V	I_C = 50μA
Collector-emitter breakdown voltage	BV_{CEO}	80	−	−	V	I_C = 25mA
Emitter-base breakdown voltage	BV_{EBO}	6	−	−	V	I_E = 50μA
Collector cutoff current	I_{CBO}	−	−	10	μA	V_{CB} = 100V
Emitter cutoff current	I_{EBO}	−	−	10	μA	V_{EB} = 6V
Collector-emitter saturation voltage	$V_{CE(sat)}$	−	−	1	V	I_C/I_B = 2A/0.2A *
Base-emitter saturation voltage	$V_{BE(sat)}$	−	−	1.5	V	I_C/I_B = 2A/0.2A *
DC current transfer ratio	h_{FE}	100	−	500	−	V_{CE}/I_C = 4V/1A
Transition frequency	f_T	−	10	−	MHz	V_{CE} = 12V , I_E = −0.2A , f = 5MHz *
Output capacitance	Cob	−	60	−	pF	V_{CB} = 10V , I_E = 0A , f = 1MHz

*Measured using pulse current