Transistor

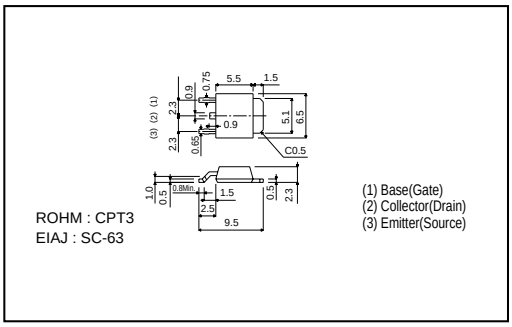
Power Transistor (–80V, –4A)

2SB1474

●Features

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

●External dimensions (Units : mm)



●Absolute maximum ratings (Ta=25°C)

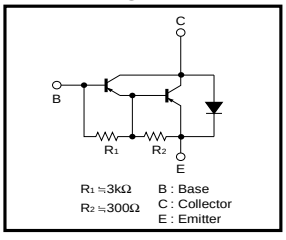
Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	-80	V
Collector-emitter voltage	V_{CES}	-80	V
Emitter-base voltage	V_{EBO}	-7	V
Collector current	I_C	-4	A(DC)
		-6	A *
Collector power dissipation	P_C	1	W
		10	W (Tc=25˚C)
Junction temperature	Tj	150	˚C
Storage temperature	Tstg	-55~+150	˚C

* Single pulse, Pw=100ms

●Packaging specifications and h_{FE}

Type	2SB1474
Package	CPT3
h_{FE}	1k~10k
Code	TL
Basic ordering unit (pieces)	2500

●Circuit diagram



●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}	-	-	-3	mA	V_{EB}=-5V
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-1	-1.5	V	I_C/I_B=-2A/-4mA *1
DC current transfer ratio	h_{FE}	1000	5000	10000	-	V_{CE}/I_C=-3V/-2A *1
Transition frequency	f_T	-	12	-	MHz	V_{CE}=-5V, I_E=0.5A, f=10MHz *2
Output capacitance	Cob	-	45	-	pF	V_{CB}=-10V, I_E=0A, f=1MHz

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