

Power Transistor (−80V, −4A)

2SB1474

●Features

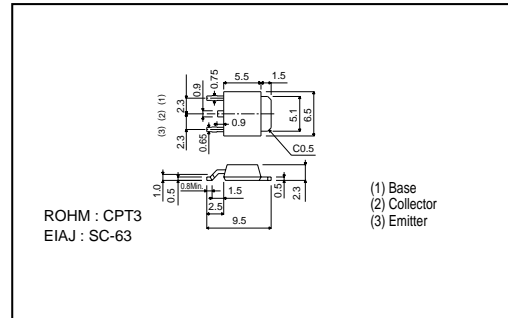
- 1) Darlington connection for a high h_{FE} .
- 2) Built-in resistor between base and emitter.
- 3) Built-in damper diode.

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	-80	V
Collector-emitter voltage	V_{CE0}	-80	V
Emitter-base voltage	V_{EB0}	-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	T_j	150	°C
Storage temperature	T_{stg}	-55~+150	°C

* Single pulse, Pw=100ms

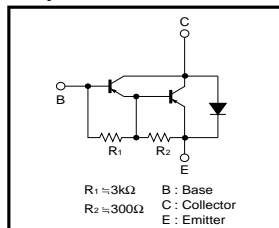
●External dimensions (Units : mm)



●Packaging specifications and h_{FE}

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

●Equivalent circuit



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CB0}	-80	-	-	V	$I_c = -50\mu A$
Collector-emitter breakdown voltage	BV_{CE0}	-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	C_{ob}	-	45	-	pF	$V_{CB} = -10V, I_E = 0A, f = 1MHz$

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