

2SD1754, 2SD1754A

Silicon NPN triple diffusion planar type

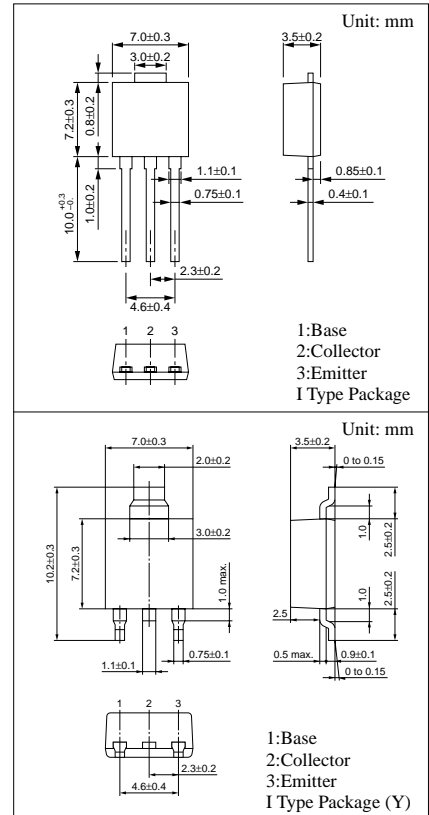
For power amplification with high forward current transfer ratio

Features

- High forward current transfer ratio h_{FE}
- Satisfactory linearity of forward current transfer ratio h_{FE}
- I type package enabling direct soldering of the radiating fin to the printed circuit board, etc. of small electronic equipment.

Absolute Maximum Ratings ($T_C=25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	2SD1754 2SD1754A	80	V
Collector to emitter voltage			
Emitter to base voltage	V_{EBO}	6	V
Peak collector current	I_{CP}	6	A
Collector current	I_C	3	A
Base current	I_B	1	A
Collector power dissipation	P_C	15	W
		1.3	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Electrical Characteristics ($T_C=25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	2SD1754 2SD1754A	I_{CBO}	$V_{CB} = 80V, I_E = 0$		100	μA
Collector cutoff current	I_{CEO}	$V_{CE} = 40V, I_B = 0$			100	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 6V, I_C = 0$			100	μA
Collector to emitter voltage	2SD1754 2SD1754A	V_{CEO}	$I_C = 25\text{mA}, I_B = 0$	60		V
				80		
Forward current transfer ratio	h_{FE}^*	$V_{CE} = 4V, I_C = 0.5A$	500		1500	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2A, I_B = 0.05A$			1	V
Transition frequency	f_T	$V_{CE} = 12V, I_C = 0.2A, f = 10\text{MHz}$		30		MHz

* h_{FE} Rank classification

Rank	Q	P
h_{FE}	500 to 1000	800 to 1500

