

2SB1724, 2SB1724A

Silicon PNP epitaxial planar type

For power amplification

Complementary to 2SD2693 and 2SD2693A

■ Features

- Wide safe operation area
- Satisfactory linearity of forward current transfer ratio h_{FE}
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Full-pack package which can be installed to the heat sink with one screw

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	2SB1724 2SB1724A	V_{CBO}	-60 -80	V
Collector-emitter voltage (Base open)	2SB1724 2SB1724A	V_{CEO}	-60 -80	V
Emitter-base voltage (Collector open)	V_{EBO}	-6	V	
Collector current	I_C	-3	A	
Peak collector current	I_{CP}	-5	A	
Collector power dissipation	P_C	30	W	
	$T_a = 25^\circ\text{C}$	2.0		
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	

■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

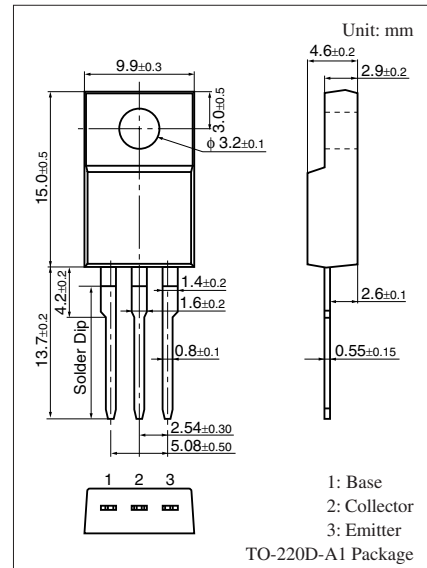
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	2SB1724 2SB1724A	V_{CEO} $I_C = -30\text{ mA}$, $I_B = 0$	-60 -80			V
Collector-base cutoff current (Emitter open)	2SB1724 2SB1724A	I_{CBO} $V_{CB} = -60\text{ V}$, $I_E = 0$ $V_{CB} = -80\text{ V}$, $I_E = 0$			-100	μA
Collector-emitter cutoff current (Base open)	2SB1724 2SB1724A	I_{CEO} $V_{CE} = -60\text{ V}$, $I_B = 0$ $V_{CE} = -80\text{ V}$, $I_B = 0$			-100	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -6\text{ V}$, $I_C = 0$			-1	mA
Forward current transfer ratio ^{*1}	h_{FE1} ^{*2} h_{FE2}	$V_{CE} = -4\text{ V}$, $I_C = -1\text{ A}$ $V_{CE} = -4\text{ V}$, $I_C = -3\text{ A}$	70 10		250	—
Collector-emitter saturation voltage ^{*1}	$V_{CE(sat)}$	$I_C = -3\text{ A}$, $I_B = -0.375\text{ A}$			-0.8	V
Transition frequency	f_T	$V_{CE} = -10\text{ V}$, $I_C = -0.5\text{ A}$, $f = 10\text{ MHz}$		30		MHz
Turn-on time	t_{on}	$I_C = -1\text{ A}$, Resistance loaded		0.15		μs
Storage time	t_{stg}	$I_{B1} = -0.1\text{ A}$, $I_{B2} = 0.1\text{ A}$		0.8		μs
Fall time	t_f	$V_{CC} = 50\text{ V}$		0.2		μs

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

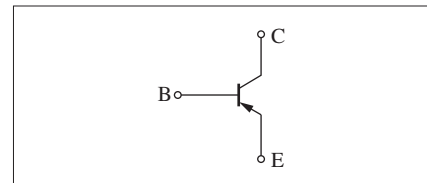
2. *1: Pulse measurement

*2: Rank classification

Rank	Q	P
h_{FE1}	70 to 150	120 to 250



Internal Connection



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