

# 2SB1548, 2SB1548A

Silicon PNP epitaxial planar type

For power amplification

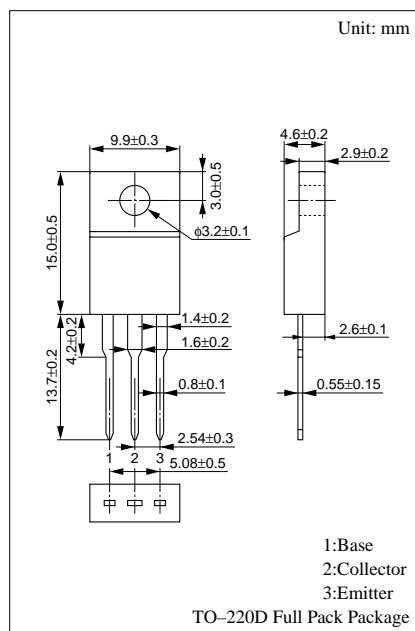
Complementary to 2SD2374 and 2SD2374A

## Features

- High forward current transfer ratio  $h_{FE}$  which has satisfactory linearity
- Low collector to emitter saturation voltage  $V_{CE(sat)}$
- Full-pack package which can be installed to the heat sink with one screw

## Absolute Maximum Ratings ( $T_C=25^\circ C$ )

Parameter	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-60	V
2SB1548			
2SB1548A		-80	
Collector to emitter voltage	$V_{CEO}$	-60	V
2SB1548			
2SB1548A		-80	
Emitter to base voltage	$V_{EBO}$	-5	V
Peak collector current	$I_{CP}$	-5	A
Collector current	$I_C$	-3	A
Collector power dissipation	$P_C$	25	W
$T_C=25^\circ C$			
$T_a=25^\circ C$		2	
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$



## Electrical Characteristics ( $T_C=25^\circ C$ )

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	$I_{CES}$	$V_{CE} = -60V, V_{BE} = 0$			-200	$\mu A$
2SB1548		$V_{CE} = -80V, V_{BE} = 0$			-200	
Collector cutoff current	$I_{CEO}$	$V_{CE} = -30V, I_B = 0$			-300	$\mu A$
2SB1548A		$V_{CE} = -60V, I_B = 0$			-300	
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-1	mA
Collector to emitter voltage	$V_{CEO}$	$I_C = -30mA, I_B = 0$	-60			V
2SB1548			-80			
Forward current transfer ratio	$h_{FE1}^*$	$V_{CE} = -4V, I_C = -1A$	70		250	
		$V_{CE} = -4V, I_C = -3A$	10			
Base to emitter voltage	$V_{BE}$	$V_{CE} = -4V, I_C = -3A$			-1.8	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -0.375A$			-1.2	V
Transition frequency	$f_T$	$V_{CE} = -10V, I_C = -0.5A, f = 10MHz$		30		MHz
Turn-on time	$t_{on}$	$I_C = -1A, I_{B1} = -0.1A, I_{B2} = 0.1A$		0.5		$\mu s$
Storage time	$t_{stg}$			1.2		$\mu s$
Fall time	$t_f$			0.3		$\mu s$

\* $h_{FE1}$  Rank classification

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

Note: Ordering can be made by the common rank (PQ rank  $h_{FE1} = 70$  to 250) in the rank classification.

