



DESCRIPTION

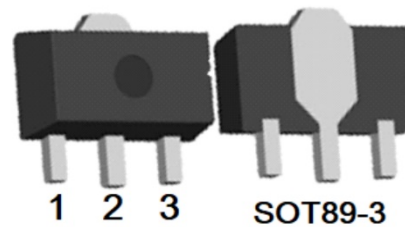
The 2SB1124 is available in SOT89-3 packages.

Application: Voltage Regulators, relay drivers, lamp drivers, electrical equipment.

FEATURE

- Adoption of FBET, MBIT processes.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.

PIN DESCRIPTION



Pin	PIN DESCRIPTION
1	BASE
2	COLLECTOR
3	EMITTER

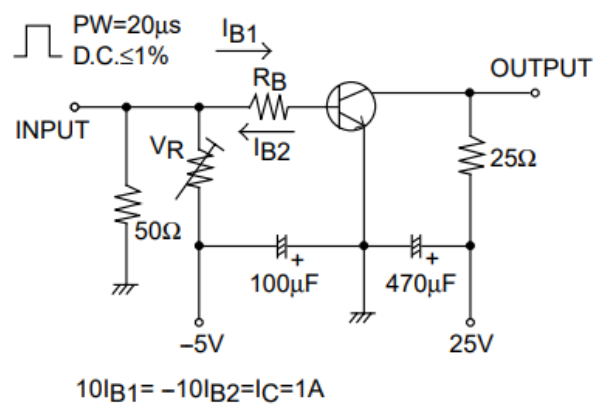
ORDERING INFORMATION

Package Type	Part Number
SOT89-3	2SB1124-R
	2SB1124-S
	2SB1124-T
	2SB1124-U
Note	SPQ: 1,000pcs/Reel
AiT provides all RoHS products	

hFE Classification

Part Number	hFE Range
2SB1124-R	100~200
2SB1124-S	140~280
2SB1124-T	200~400
2SB1124-U	280~560

TEST CIRCUIT





ABSOLUTE MAXIMUM RATINGS

T_A=25°C

V _{CBO} , Collector-base voltage	-60V
V _{CEO} , Collector-emitter voltage	-50V
V _{EBO} , Emitter-base voltage	-6A
I _C , Collector current	-3A
I _{CP} , Collector current(pulse)	-6A
P _C , Collector dissipation	500mW
T _J , Junction temperature	150°C
T _{stg} , Storage temperature	-55°C~+150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

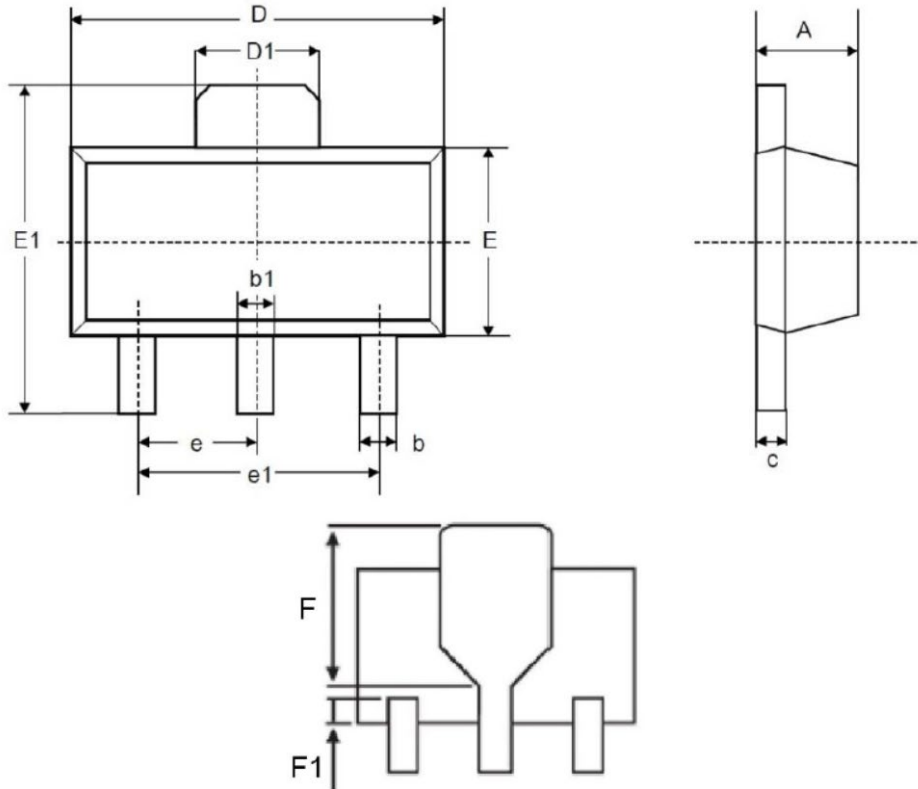
T_A = 25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector cutoff current	I _{CBO}	V _{CB} =-40V, I _E =0	-	-	-1	μA
Emitter cutoff current	I _{EBO}	V _{CB} =-4V, I _E =0	-	-	-1	μA
DC current Gain	h _{FE}	V _{CE} =-2V, I _C =-100mA	100	-	560	-
Gain bandwidth product	f _T	V _{CE} =-10V, I _C =-50mA	-	150	-	MHz
Output capacitance	C _{ob}	V _{CB} =-10V, f=1MHz	-	39	-	pF
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-2A, I _B =-100 mA	-	-0.35	-0.7	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-2A, I _B =-100 mA	-	-0.94	-1.2	V
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-60	-	-	V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, R _{BE} = ∞	-50	-	-	V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-6	-	-	V
Turn-on time	t _{on}	See page #1 Test Circuit	-	70	-	ns
Storage time	t _{stg}		-	450	-	ns
Fall time	T _f		-	35	-	ns



PACKAGE INFORMATION

Dimension in SOT89-3 (Unit: mm)



Symbol	Min.	Max.
A	1.400	1.600
b	0.380	0.580
b1	0.430	0.630
c	0.340	0.540
D	4.400	4.600
D1	1.700	1.900
E	2.400	2.600
E1	3.900	4.100
F	2.500	2.700
F1	0.300	0.500
e	1.400	1.600
e1	2.900	3.100
L	0.900	1.200



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