2SB772

PNP medium power transistor

Features

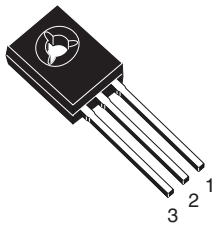
- High current
- Low saturation voltage
- Complement to 2SD882

Applications

- Voltage regulation
- Relay driver
- Generic switch
- Audio power amplifier
- DC-DC converter

Description

The device is a PNP transistor manufactured by using planar Technology resulting in rugged high performance devices. The complementary NPN type is 2SD882.



SOT-32
(TO-126)

Figure 1. Internal schematic diagram

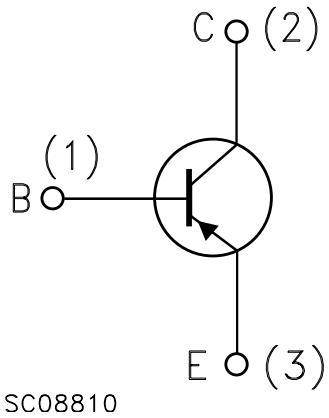


Table 1. Device summary

Order code	Marking	Package	Packing
2SB772	B772	SOT-32	Tube

1 Absolute maximum ratings

Table 2. Absolute maximum rating

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-base voltage (I_E = 0)	-60	V
V_{CEO}	Collector-emitter voltage (I_B = 0)	-30	V
V_{EBO}	Collector-base voltage (I_C = 0)	-5	V
I_C	Collector current	-3	A
I_{CM}	Collector peak current (t_P < 5ms)	-6	A
I_B	Base current	-1	A
I_{BM}	Base peak current (t_P < 5ms)	-2	A
P_{TOT}	Total dissipation at T_c = 25°C	12.5	W
T_{STG}	Storage temperature	-65 to 150	°C
T_J	Max. operating junction temperature	150	°C

Table 3. Thermal data

Symbol	Parameter	Value	Unit
$R_{thJ\text{-}case}$	Thermal resistance junction-case max	10	°C/W

2 Electrical characteristics

(T_{CASE} = 25°C; unless otherwise specified)

Table 4. Electrical characteristics

Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector cut-off current (V_{BE} = 0)	V_{CE} = -60 V			-10	µA
I_{CEO}	Collector cut-off current (I_B = 0)	V_{CE} = -30 V			-100	µA
I_{EBO}	Emitter cut-off current (I_C = 0)	V_{EB} = -5 V			-10	µA
$V_{(BR)CEO}$ (1)	Collector-emitter breakdown voltage (I_B = 0)	I_C = -10 mA	-30			V
$V_{(BR)CBO}$	Collector-base breakdown voltage (I_E = 0)	I_C = -100 µA	-60			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage (I_C = 0)	I_E = -100 µA	-5			V
$V_{CE(sat)}$ (1)	Collector-emitter saturation voltage	I_C = -1 A I_B = -50 mA I_C = -2 A I_B = -100 mA I_C = -3 A I_B = -150 mA			-0.4 -0.7 -1.1	V V V
$V_{BE(sat)}$ (1)	Base-emitter saturation voltage	I_C = -2 A I_B = -100 mA			-1.2	V
h_{FE}	DC current gain	I_C = -100 mA V_{CE} = -2 V I_C = -1 A V_{CE} = -2 V I_C = -3 A V_{CE} = -2 V	100 80 30		300	
f_T	Transition frequency	I_C = -0.1 V_{CE} = -10 V		100		MHz

1. Pulsed duration = 300 ms, duty cycle ≤1.5%.