CHENMKO ENTERPRISE CO.,LTD

2SB1132PT

Lead free devices

SURFACE MOUNT
PNP Medium Power Transistor
VOLTAGE 32 Volts CURRENT 1 Ampere

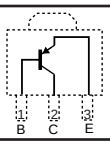
APPLICATION
* Telephony and proferssional communction equipment.
* Other switching applications.

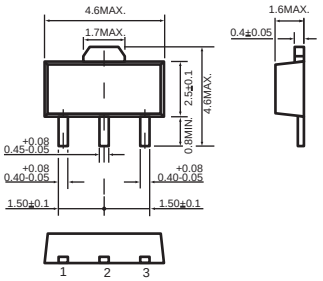
FEATURE
* Small flat package. (SC-62/SOT-89)
* High current gain.
* Suitable for high packing density.
* Low colloector-emitter saturation.
* High saturation current capability.

MARKING
* HFE(P):P32
* HFE(Q):Q32
* HFE(R):BAR

SC-62/SOT-89

CIRCUIT





1 Base
2 Collector (Heat Sink)
3 Emitter

Dimensions in millimeters

SC-62/SOT-89

LIMITING VALUES
In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{CBO}	collector-base voltage	open emitter	–	-40	V
V_{CEO}	collector-emitter voltage	open base	–	-32	V
V_{EBO}	emitter-base voltage	open collector	–	-5	V
I_C	collector current (DC)		–	-1	A
P_C	Collector power dissipation		–	0.5	W
		Note2	–	2	
T_{stg}	storage temperature		–55	+150	°C
T_j	junction temperature		–	150	°C

Note

1. Transistor mounted on an FR4 printed-circuit board.
2. When mounted on a 40X40X0.7 mm ceramic board.

2004-03

RATING CHARACTERISTIC (2SB1132PT)

THERMAL CHARACTERISTICS
CHARACTERISTICS

T_{amb} = 25 °C unless otherwise speciÞed.

SYMBOL	PARAMETER	CONDITIONS	MIN.	Typ.	MAX.	UNIT
I_{EBO}	emitter cutoff current	V_{EB}=-4V	–	–	-0.5	uA
I_{CBO}	collector cut-off current	V_{CB}=-20V	–	–	-0.5	uA
BV_{CBO}	collector-base breakdown voltage	I_C =-50uA	-40	–	–	V
BV_{CEO}	collector-emitter breakdown voltage	I_C =-1mA	-32	–	–	V
BV_{EBO}	emitter-base breakdown voltage	I_E =-50uA	-5	–	–	V
h_{FE}	DC current transfer ratio	V_{CE}=-3V , I_C=-0.1A	82	–	390	
V_{CEsat}	collector-emitter saturation voltage	I_C/I_B=-500mA/-50mA	–	-200	-500	mV
Cob	collector output capacitance	I_E = 0; V_{CB} = -10V ; f = 1 MHz	–	20	30	pF
f_T	transition frequency	I_E = 50 mA; V_{CE} = - 5 V ; f = 30MHz	–	150	–	MHz

Note

1. Pulse test: $t_p \leq 300\ \mu s$; $\delta \leq 0.02$.
2. hFE: Classification P: 82 to 180, Q: 120 to 270, R: 180 to 390

RATING CHARACTERISTIC CURVES (2SB1132PT)

fig1.DCcurrent gain VS. collector current (1)

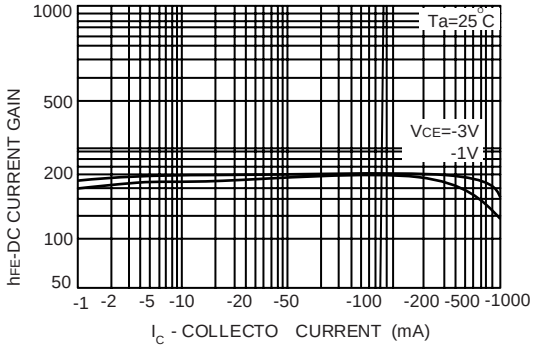


fig2.Collector-emitter saturation voltage VS. collector current

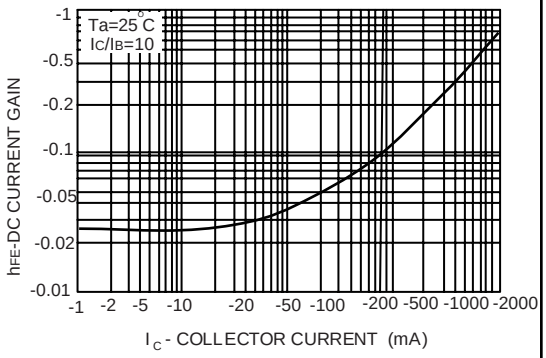


fig3.Gain bandwidth product VS. emitter current

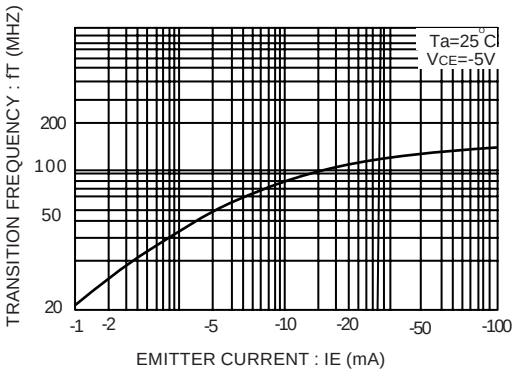


fig4.Collector output capacitance VS. collector-base voltage

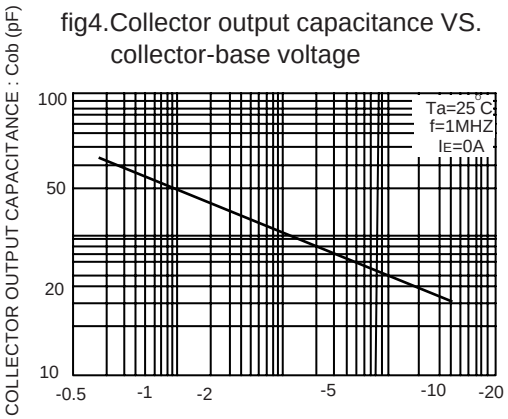


fig5.Grounded emitter output characteristics

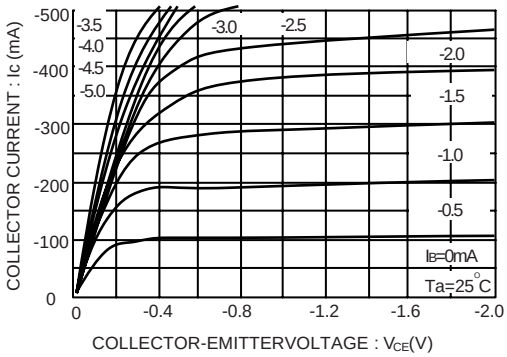


fig6.Grounded emitter propagation characteristics