CHENMKO ENTERPRISE CO.,LTD

CHT858BWPT

Lead free devices

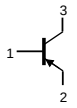
SURFACE MOUNT
PNP General Purpose Transistor
VOLTAGE 30 Volts CURRENT 0.1 Ampere

APPLICATION
* AF input stages and driver applicationon equipment.
* Other general purpose applications.

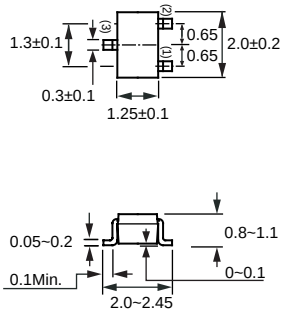
FEATURE
* Surface mount package. (SC-70/SOT-323)
* High current gain.
* Suitable for high packing density.
* Low colloector-emitter saturation.
* High saturation current capability.

MARKING
* HFE(Q):RW
* HFE(R):RX
* HFE(S):RY

CIRCUIT



SC-70/SOT-323



Dimensions in millimeters

SC-70/SOT-323

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	–	-30	V
V_{CEO}	collector-emitter voltage	open base	–	-30	V
V_{EBO}	emitter-base voltage	open collector	–	-5	V
I_C	collector current (DC)		–	-0.1	A
P_C	Collector power dissipation		–	0.2	W
		Note.2	–	0.35	
T_{stg}	storage temperature		–55	+150	°C
T_j	junction temperature		–	150	°C

Note

2004-10

1. Transistor mounted on an FR4 printed-circuit board.
2. When mounted on a aX5X0.6mm ceramic board

RATING CHARACTERISTIC (CHT858BWPT)

THERMAL CHARACTERISTICS
CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	Typ.	MAX.	UNIT
I_{CBO}	collector cut-off current	I_E = 0; V_{CB} = 30 V	–	–	15	nA
BV_{CBO}	collector-base breakdown voltage	I_C =-10uA	-30	–	–	V
BV_{CEO}	collector-emitter breakdown voltage	I_C =-10mA	-30	–	–	V
BV_{EBO}	emitter-base breakdown voltage	I_E =-1uA	-5	–	–	V
h_{FE}	DC current transfer ratio	V_{CE}/I_C =-5V/-2 mA	125	–	800	
V_{CEsat}	collector-emitter saturation voltage	I_C = -10 mA ; I_B = -0.5 mA	–	–	-300	mV
		I_C = -100 mA ; I_B= -5 mA	–	–	-650	mV
$V_{BE(on)}$	base-emitter satur ation voltage	I_C = -10 mA;V_{CE} = -5.0 V	-0.6	–	-0.75	V
Cob	collector output capacitance	I_E = 0; V_{CB} = -10V ; f = 1 MHz	–	4.5	–	pF
f_T	transition frequency	I_E = 20 mA; V_{CE} = - 5 V ; f = 100MHz	–	200	–	MHz

Note

1. Pulse test: $t_p \leq 300\ \mu s$; $\delta \leq 0.02$.
2. hFE: Classification Q: 125 to 250, R: 220 to 475, S: 420 to 800

RATING CHARACTERISTIC CURVES (CHT858BWPT)

fig1.Grounded emmitter output characteristics (1)

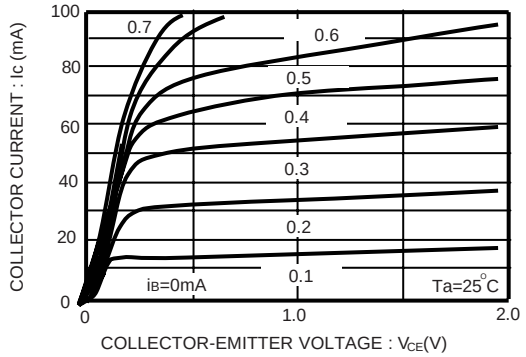
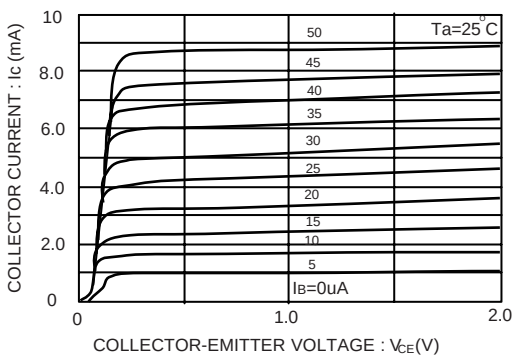


fig2.Grounded emmitter output characteristics (2)



RATING CHARACTERISTIC CURVES (CHT858BWPT)

fig3.DCcurrent gain VS. collector current (1)

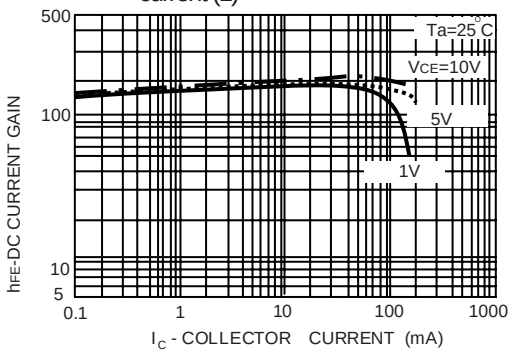


fig4.DCcurrent gain VS. collector current (2)

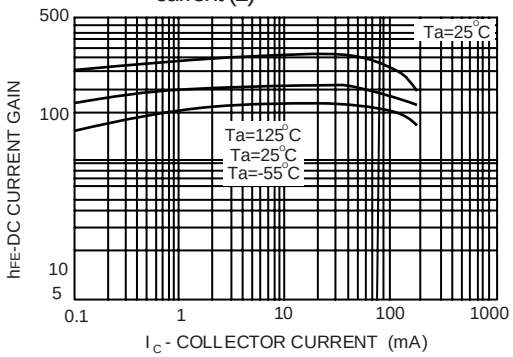


fig5.AC current gain VS. collector current

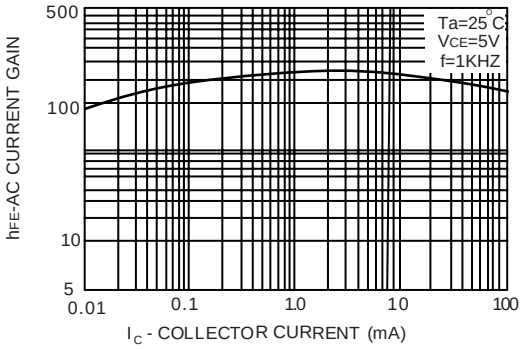


fig6.Collector-emitter saturation voltage VS. collector current

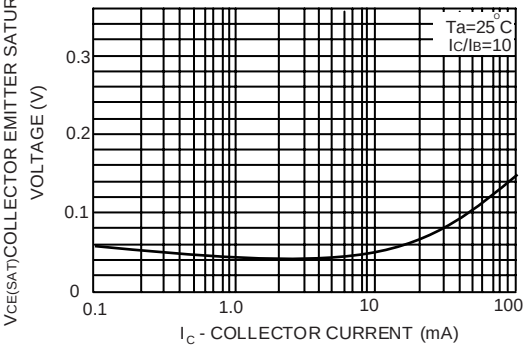


fig7.Bass-emitter saturation voltage VS. collector current

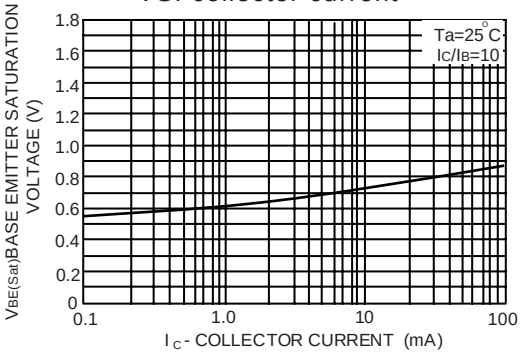
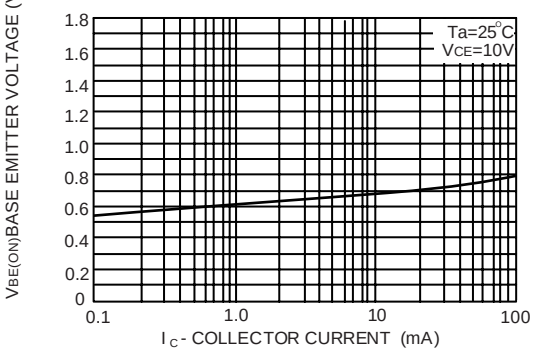


fig8.Grounded emitter propagation characteristics



RATING CHARACTERISTIC CURVES (CHT858BWPT)

fig9.Input/output capacitance VS. voltage

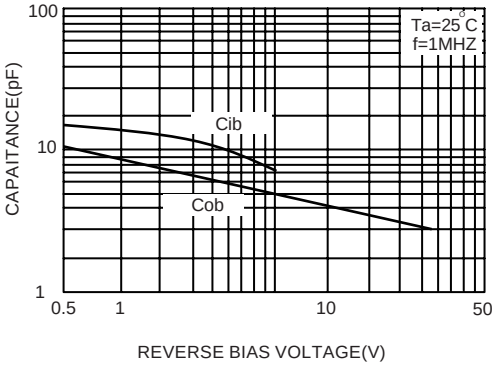


fig10.Gain bandwidth product VS. collector current