



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SURFACE MOUNT

PNP General Purpose Transistor

VOLTAGE 30 Volts CURRENT 0.1 Ampere

CHT858BWPT

APPLICATION

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

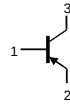
FEATURE

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

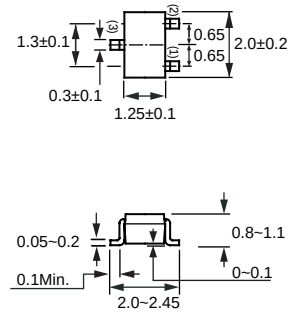
MARKING

- * 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

$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified.

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

Note

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

RATING CHARACTERISTIC CURVES (CHT858BWPT)

fig1. Grounded emitter output characteristics (1)

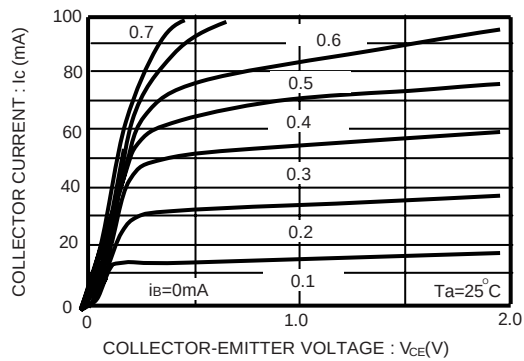
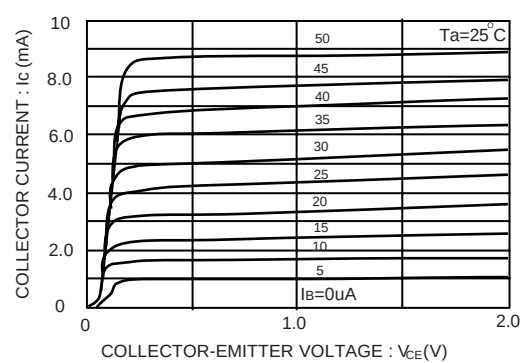


fig2. Grounded emitter output characteristics (2)



RATING CHARACTERISTIC CURVES (CHT858BWPT)

fig3.DCcurrent gain VS. collector current (1)

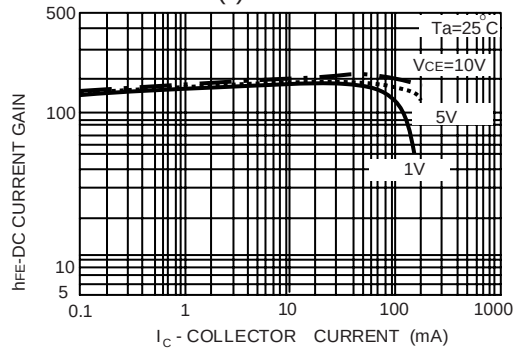


fig4.DCcurrent gain VS. collector current (2)

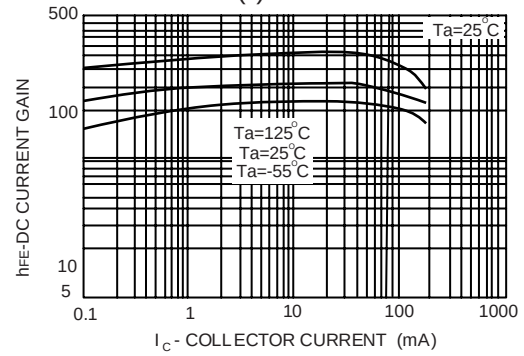


fig5.AC current gain VS. collector current

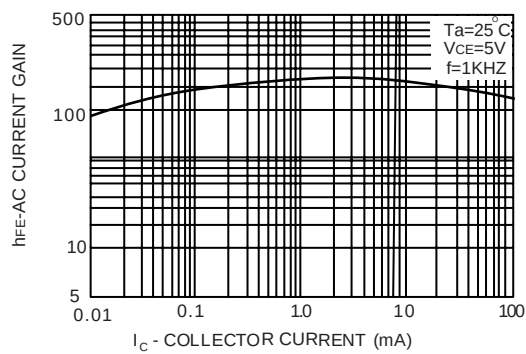


fig6.Collector-emitter saturation voltage VS. collector current

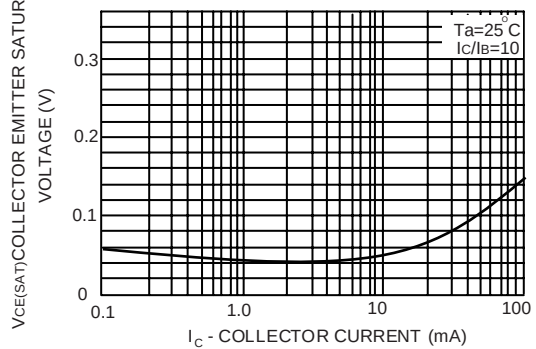


fig7.Base-emitter saturation voltage VS. collector current

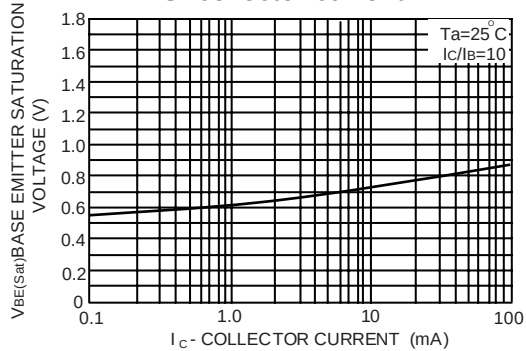
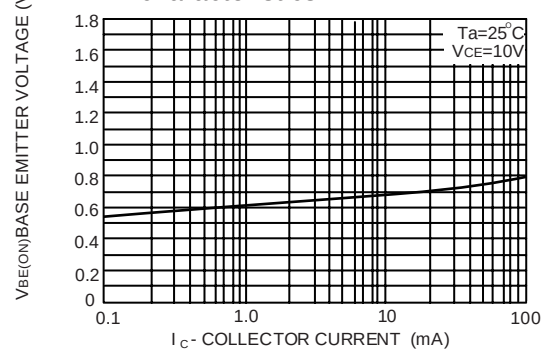


fig8.Grounded emitter propagation characteristics



RATING CHARACTERISTIC CURVES (CHT858BWPT)

fig9.Input/output capacitance VS. voltage

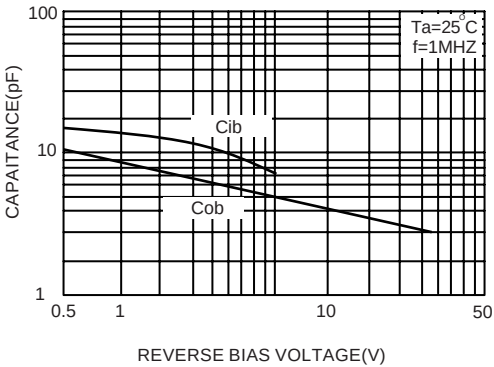


fig10.Gain bandwidth product VS. collector current

