



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT**

**PNP Multi-Chip General Purpose Amplifier**

VOLTAGE 45 Volts CURRENT 0.1 Ampere

**CHT857BGP**

**APPLICATION**

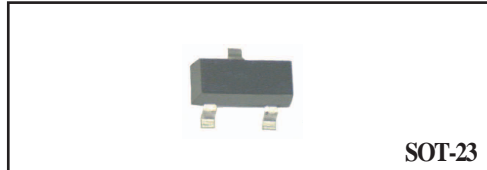
- \* AF input stages and driver applicationon equipment.
- \* Other general purpose applications.

**FEATURE**

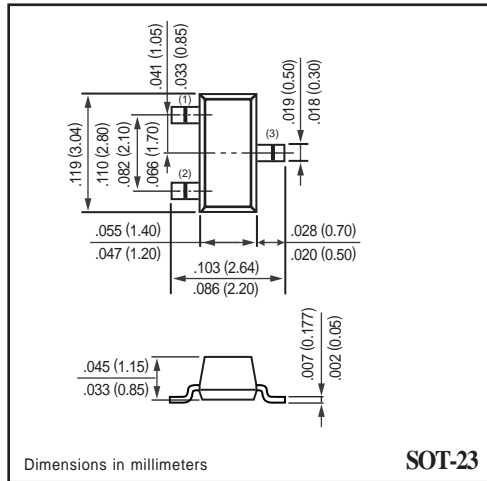
- \* Small surface mounting type. (SOT-23)
- \* High current gain.
- \* Suitable for high packing density.
- \* Low collector-emitter saturation.
- \* High saturation current capability.

**MARKING**

- \* HFE(Q):J13
- \* HFE(R):J14
- \* HFE(S):J15

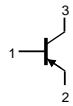


**SOT-23**



**SOT-23**

**CIRCUIT**



**LIMITING VALUES**

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

SYMBOL	PARAMETER	CONDITIONS		UNIT
V <sub>CBO</sub>	collector-base voltage	open emitter	-50	V
V <sub>CEO</sub>	collector-emitter voltage	open base	-45	V
V <sub>EBO</sub>	emitter-base voltage	open collector	-5	V
I <sub>C</sub>	collector current (DC)		-0.1	A
P <sub>C</sub>	Collector power dissipation		300	mW
T <sub>stg</sub>	storage temperature		-55~+150	°C
T <sub>j</sub>	junction temperature		+150	°C

**Note**

1. Transistor mounted on an FR4 printed-circuit board.

## RATING CHARACTERISTIC ( CHT857BGP )

### THERMAL CHARACTERISTICS CHARACTERISTICS

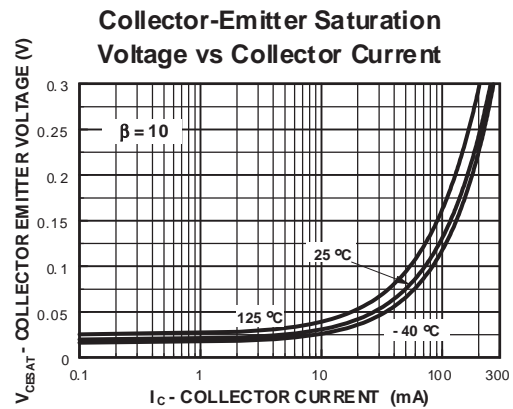
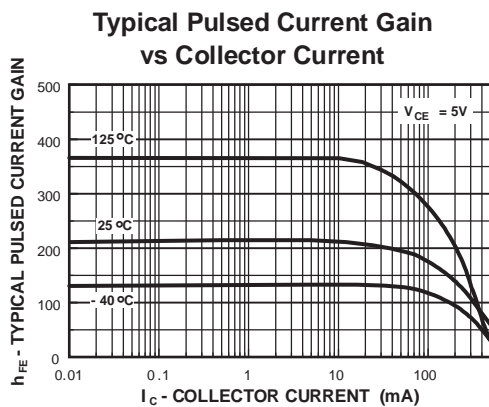
$T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	Typ.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$I_E = 0; V_{CB} = -30\text{ V}$	-	-	-15	nA
		$I_C = 0; V_{CB} = -30\text{ V}; T_A = 150\text{ }^{\circ}\text{C}$	-	-	-5	$\mu\text{A}$
$BV_{CBO}$	collector-base breakdown voltage	$I_C = -10\text{ }\mu\text{A}$	-50	-	-	V
$BV_{CEO}$	collector-emitter breakdown voltage	$I_C = -10\text{ mA}$	-45	-	-	V
$BV_{EBO}$	emitter-base breakdown voltage	$I_E = -1\text{ }\mu\text{A}$	-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
$V_{BEsat}$	base-emitter saturation voltage	$I_C = -10\text{ mA}; I_B = -0.5\text{ mA}$	-	-700	-	mV
$C_{ib}$	emitter input capacitance	$I_C = 0; V_{CB} = -0.5\text{ V}; f = 1\text{ MHz}$	-	8	-	pF
$C_{ob}$	collector output capacitance	$I_E = 0; V_{CB} = -10\text{ V}; f = 1\text{ MHz}$	-	3	-	pF
$f_T$	transition frequency	$I_E = -20\text{ mA}; V_{CE} = 5\text{ V}; f = 100\text{ MHz}$	100	-	-	MHz

#### Note

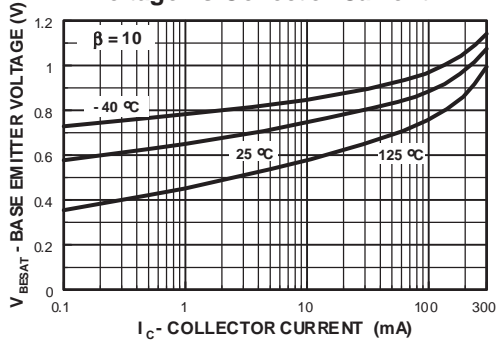
1. Pulse test:  $t_p \leq 300\text{ }\mu\text{s}; \delta \leq 0.02$ .
2.  $h_{FE}$ : Classification Q: 125 to 250, R: 220 to 475, S: 420 to 800

## RATING CHARACTERISTIC CURVES ( CHT857BGP )

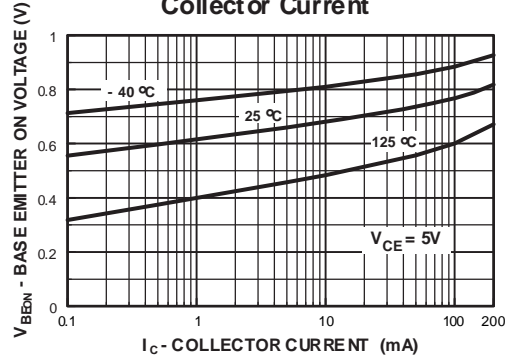


## RATING CHARACTERISTIC CURVES ( CHT857BGP )

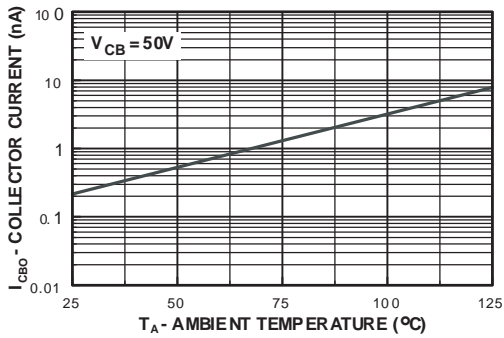
**Base-Emitter Saturation Voltage vs Collector Current**



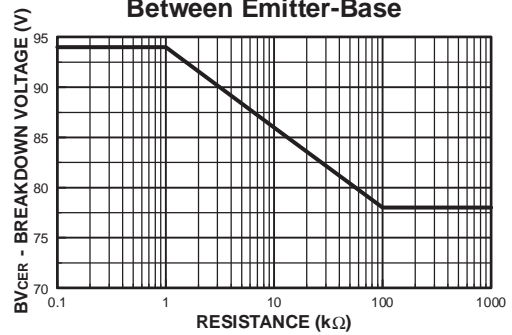
**Base Emitter ON Voltage vs Collector Current**



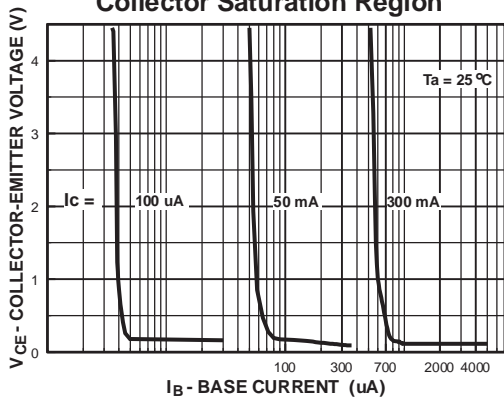
**Collector-Cutoff Current vs Ambient Temperature**



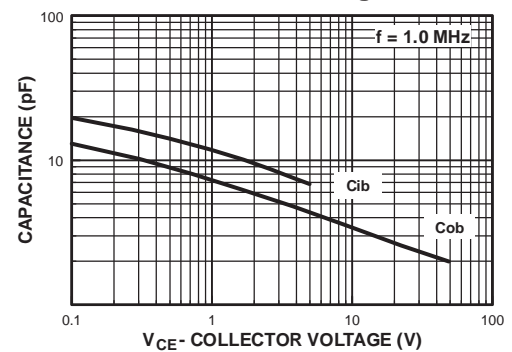
**Collector-Emitter Breakdown Voltage with Resistance Between Emitter-Base**



**Collector Saturation Region**

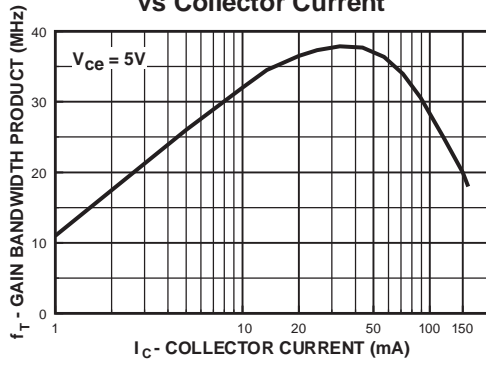


**Input and Output Capacitance vs Reverse Voltage**



## RATING CHARACTERISTIC CURVES ( CHT857BGP )

### Gain Bandwidth Product vs Collector Current



### Switching Times vs Collector Current

