



# CHENMKO ENTERPRISE CO.,LTD

**CHT807GP**

Halogens free devices

**SURFACE MOUNT**  
**PNP Multi-Chip General Purpose Amplifier**  
 VOLTAGE 45 Volts CURRENT 0.5 Ampere

**APPLICATION**

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

**FEATURE**

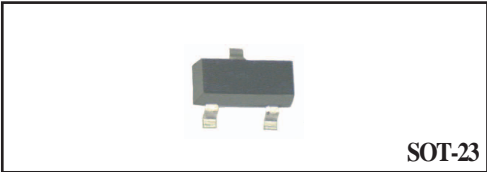
- \* Surface mount package. (SOT-23)
- \* High current gain.
- \* Suitable for high packing density.
- \* Low collector-emitter saturation.
- \* High saturation current capability.

**CONSTRUCTION**

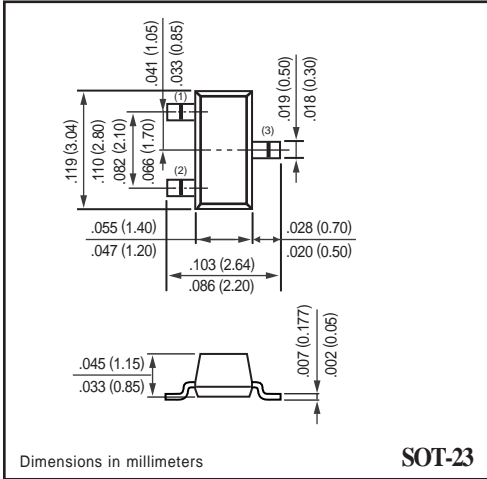
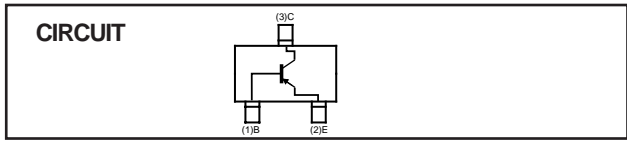
- \* PNP Silicon Transistor
- \* Epitaxial planner type

**MARKING**

- \* HFE(Q):J4
- \* HFE(R):J5
- \* HFE(S):J6



**SOT-23**



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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V <sub>CBO</sub>	collector-base voltage	open emitter	-	-45	V
V <sub>CEO</sub>	collector-emitter voltage	open base	-	-45	V
V <sub>CES</sub>	collector-base voltage	open emitter	-	-5	V
V <sub>EBO</sub>	emitter-base voltage	open collector	-	-5	V
I <sub>C</sub>	collector current (DC)		-	-500	mA
I <sub>CM</sub>	peak collector current		-	-1000	mA
I <sub>EM</sub>	peak emitter current		-	-1000	mA
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	-	310	mW
T <sub>stg</sub>	storage temperature		-65	+150	°C
T <sub>j</sub>	junction temperature		-	150	°C
T <sub>amb</sub>	operating ambient temperature		-65	+150	°C

**Note**

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

## RATING CHARACTERISTIC ( CHT807GP )

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	430	$^{\circ}C/W$

**Note**

1. Device mounted on ceramic substrate 0.7mm ; 2.5cm<sup>2</sup>ares.

### CHARACTERISTICS

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

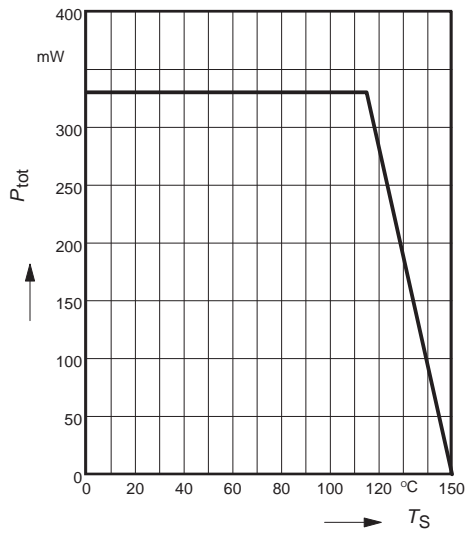
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{CES}$	collector-emitter cut-off current	$V_{CE} = 45\ V$	-	-100	nA
		$V_{CB} = 25\ V; T_j = 150\ ^{\circ}C$	-	-50	uA
$I_{EBO}$	emitter-base cut-off current	$V_{EB} = -4\ V$	-	-100	nA
$V_{CEsat}$	collector-emitter saturation volt	$I_C = -500\ mA; I_B = -50\ mA$	-	-700	mV
$h_{FE}$	DC current gain <sup>1</sup>	$I_C = -100\ mA; V_{CE} = -1.0V$	100	600	
		$I_C = -300\ mA; V_{CE} = -1.0V$	60	-	
$V_{BE}$	base-emitter voltage	$I_C = -300\ mA; V_{CE} = -1.0V$		-1.2	V
$C_{CBO}$	collector-base capacitance	$V_{CB} = 10V; f = 1\ MHz$	-	12	pF
$f_T$	transition frequency	$I_C = 10\ mA; V_{CE} = 5\ V; f = 50\ MHz$	100	-	MHz

**Note :**

1. Pulse test:  $t_p \leq 300\ \mu Sec; \delta \leq 0.02$ .
2.  $h_{FE}$ : Classification Q: 100 to 250, R: 160 to 400, S: 250 to 600

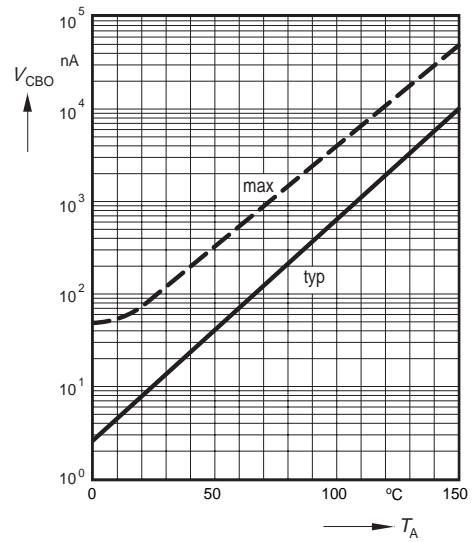
## RATING CHARACTERISTIC CURVES ( CHT807GP )

**Total power dissipation  $P_{tot} = f(T_S)$**

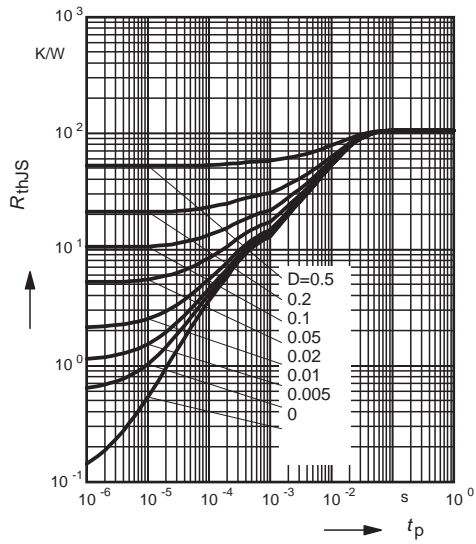


**Collector cutoff current  $I_{CBO} = f(T_A)$**

$V_{CB} = 25V$

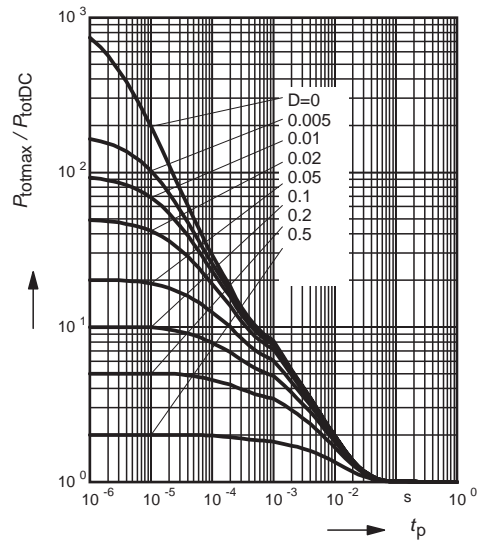


**Permissible Pulse Load  $R_{thJS} = f(t_p)$**



**Permissible Pulse Load**

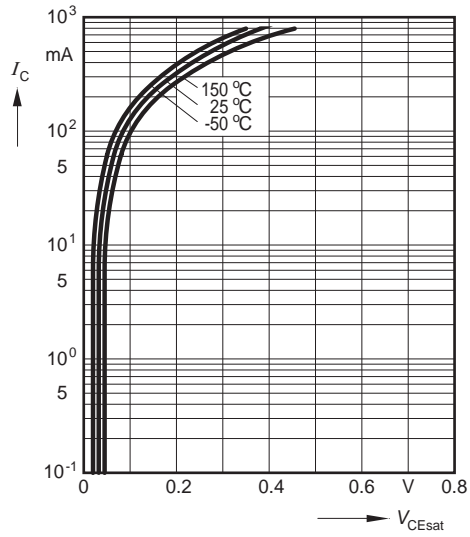
$P_{totmax} / P_{totDC} = f(t_p)$



## RATING CHARACTERISTIC CURVES ( CHT807GP )

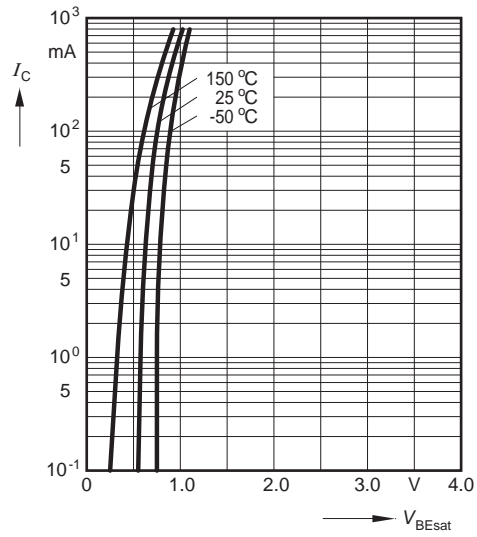
### Collector-emitter saturation voltage

$$I_C = f(V_{CEsat}), h_{FE} = 10$$



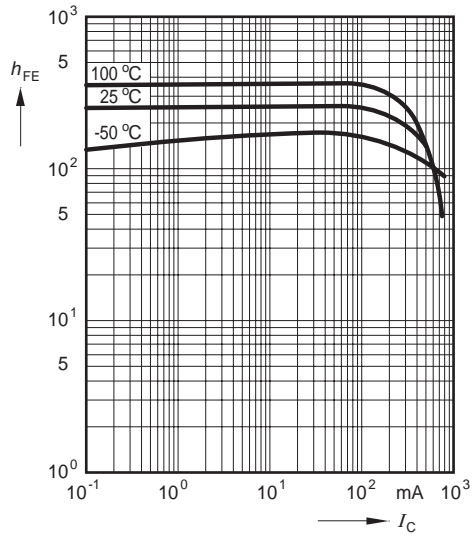
### Base-emitter saturation voltage

$$I_C = f(V_{BEsat}), h_{FE} = 10$$



### DC current gain $h_{FE} = f(I_C)$

$$V_{CE} = 5V$$



### Transition frequency $f_T = f(I_C)$

$$V_{CE} = 5V$$

