



CHENMKO ENTERPRISE CO.,LTD

CHT807PT

SURFACE MOUNT

PNP Multi-Chip General Purpose Amplifier

VOLTAGE 45 Volts CURRENT 0.5 Ampere

Lead free devices

APPLICATION

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

FEATURE

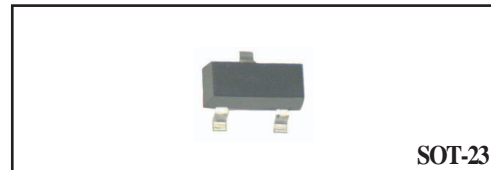
- * Surface mount package. (SOT-23)
- * High current gain.
- * Suitable for high packing density.
- * Low collector-emitter saturation.
- * High saturation current capability.

CONSTRUCTION

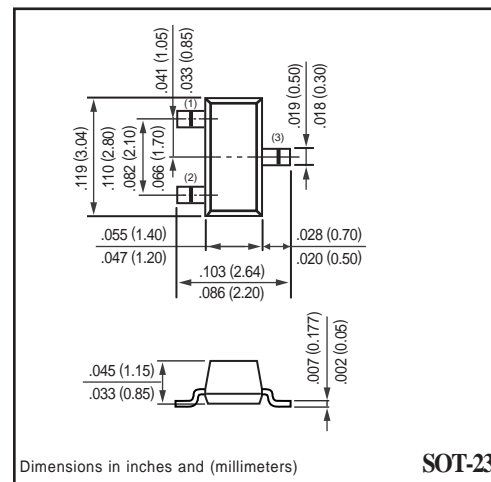
- * PNP Silicon Transistor
- * Epitaxial planner type

MARKING

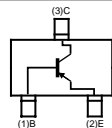
- * HFE(Q):J4
- * HFE(R):J5
- * HFE(S):J6



SOT-23



CIRCUIT



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	-	-45	V
V _{CEO}	collector-emitter voltage	open base	-	-45	V
V _{CES}	collector-base voltage		-	-50	V
V _{EBO}	emitter-base voltage	open collector	-	-5	V
I _C	collector current (DC)		-	-500	mA
I _{CM}	peak collector current		-	-1000	mA
I _{BM}	peak base current		-	-200	mA
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	-	310	mW
T _{stg}	storage temperature		-65	+150	°C
T _j	junction temperature		-	150	°C
T _{amb}	operating ambient temperature		-65	+150	°C

Note

2004-10

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

RATING CHARACTERISTIC (CH807PT)

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 ; 2.5cm²ares.

CHARACTERISTICS

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

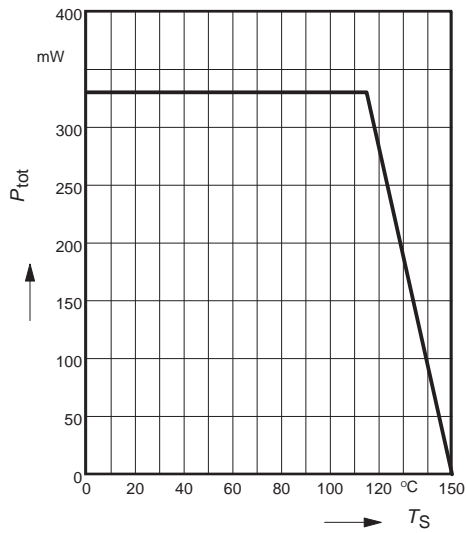
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I_{CBO}	collector-base cut-off current	$V_{CB} = -20\ V$	-	-100	nA
		$V_{CB} = -25\ V; T_j = 150\ ^{\circ}C$	-	-50	μA
I_{EBO}	emitter-base cut-off current	$V_{EB} = -4\ V$	-	-100	nA
V_{CEsat}	collector-emitter saturation volt	$I_C = -500\ mA; I_B = -50\ mA$	-	-700	mV
h_{FE}	DC current gain	$I_C = -100\ mA; V_{CE} = -1.0V$	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(typ.)	pF
f_T	transition frequency	$I_C = 10\ mA; V_{CE} = 5\ V; f = 50\ MHz$	80	-	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

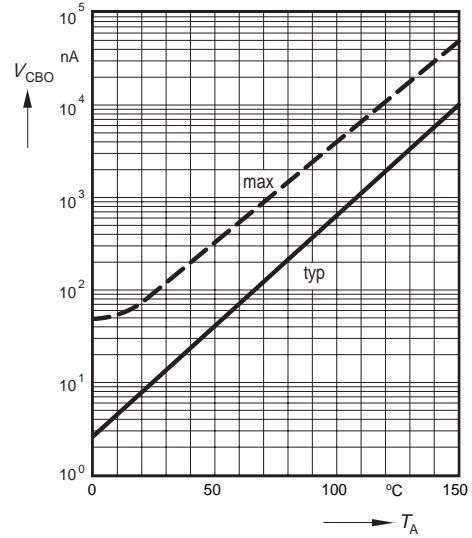
RATING CHARACTERISTIC CURVES (CH807PT)

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

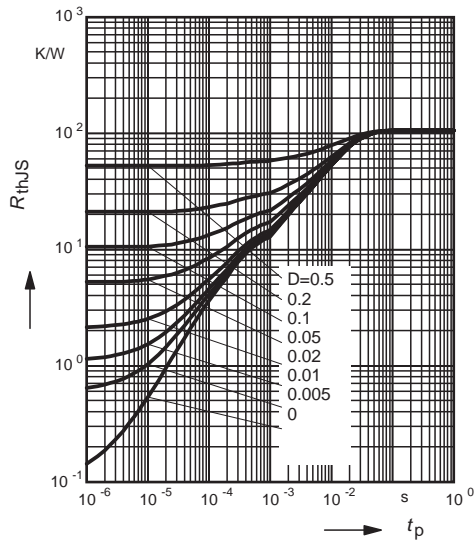


Collector cutoff current $I_{CBO} = f(T_A)$

$V_{CB} = 25V$

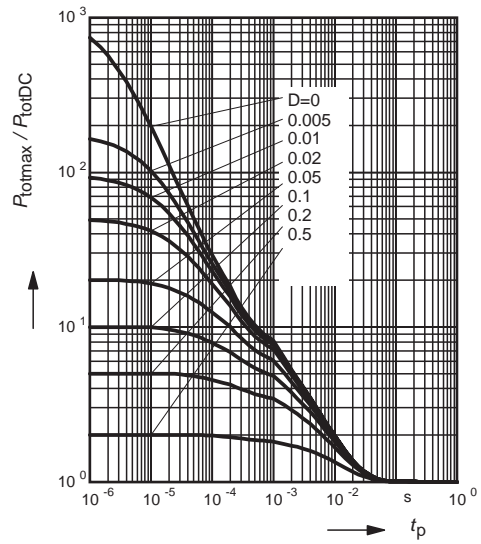


Permissible Pulse Load $R_{thJS} = f(t_p)$



Permissible Pulse Load

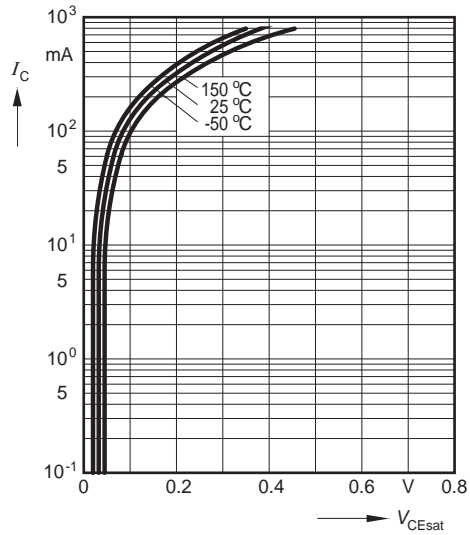
$P_{totmax} / P_{totDC} = f(t_p)$



RATING CHARACTERISTIC CURVES (CH807PT)

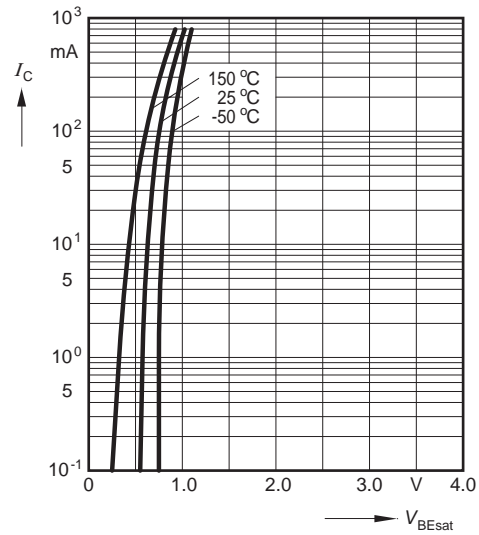
Collector-emitter saturation voltage

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



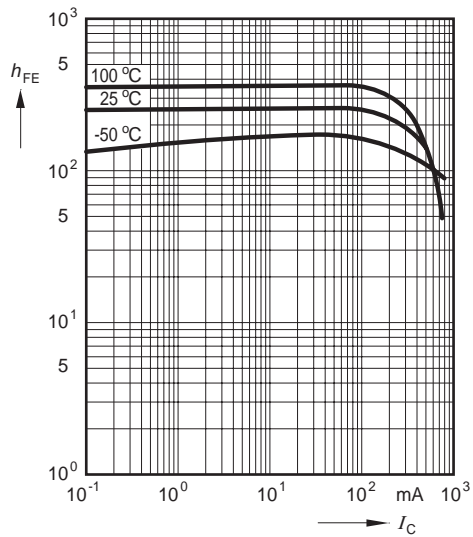
Base-emitter saturation voltage

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



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

$$V_{CE} = 5V$$



Transition frequency $f_T = f(I_C)$

$$V_{CE} = 5V$$

