CHENMKO ENTERPRISE CO.,LTD

CHT4126GP

Halogens free devices

SURFACE MOUNT

General Purpose Transistor

VOLTAGE 25 Volts CURRENT 200 mAmpere

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 colloector-emitter saturation.
- * High saturation current capability.

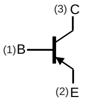
CONSTRUCTION

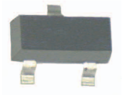
- * PNP Silicon Transistor

MARKING

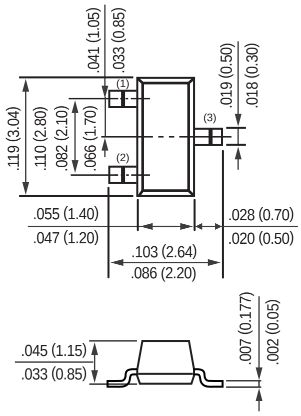
- * QT

CIRCUIT





SOT-23



Dimensions in millimeters

SOT-23

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	–	-25	V
V_{CEO}	collector-emitter voltage	open base	–	-25	V
V_{EBO}	emitter-base voltage	open collector	–	-4	V
I_C	collector current (DC)		–	-200	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25$ °C; note 2	–	350	mW
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	operating ambient temperature		–65	+150	°C

Note

2004-8

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

RATING CHARACTERISTIC CURVES (CHT4126GP)

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	collector-base breakdown voltage	I_C = -10uA ; I_E = 0A	-25	–	V
$V_{(BR)CEO}$	collector-emitter breakdown voltage	I_C = -1mA ; I_B = 0A	-25	–	V
$V_{(BR)EBO}$	emitter-base breakdown voltage	I_E = -10uA ; I_C = 0A	-4	–	V
I_{CBO}	collector cut-off current	I_E = 0; V_{CB} = -20 V	–	-50	nA
I_{EBO}	emitter cut-off current	I_C = 0; V_{EB} = - 3 V	–	-50	nA
h_{FE}	DC current gain	I_C = -50 mA; V_{CE} = -1V; note 3	60	–	
h_{FE}	DC current gain	I_C = -2 mA; V_{CE} = -1V	120	360	
V_{CEsat}	collector-emitter saturation	I_C = -50 mA; I_B = -5 mA	–	-400	mV
V_{BEsat}	base-emitter saturation voltage	I_C = -50 mA; I_B = -5 mA	–	-950	mV
C_{obo}	output capacitance	I_E = i_e = 0; V_{CB} = - 5 V ; f = 1 MHz	–	4.5	pF
C_{ibo}	input capacitance	I_E = i_e = 0; V_{CB} = - 5 V ; f = 1 MHz	–	10	pF
f_T	transition frequency	I_C = -10mA; V_{CE} = - 2 0 V ; f = 100 MHz	250	–	MHz

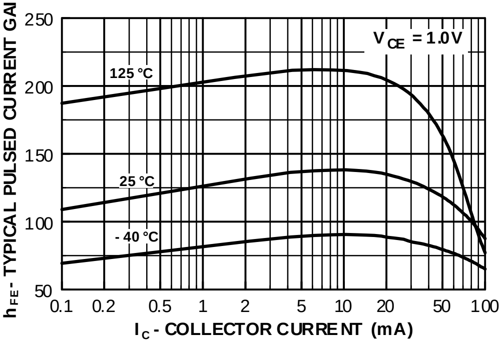
Note

3. Pulse test: $t_p \leq 300$ µs; $\delta \leq 0.02$.

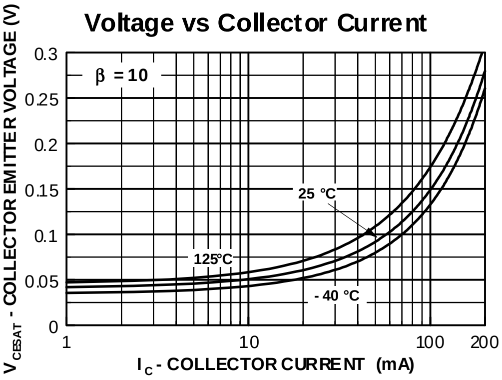
RATING CHARACTERISTIC CURVES (CHT4126GP)

Typical Characteristics

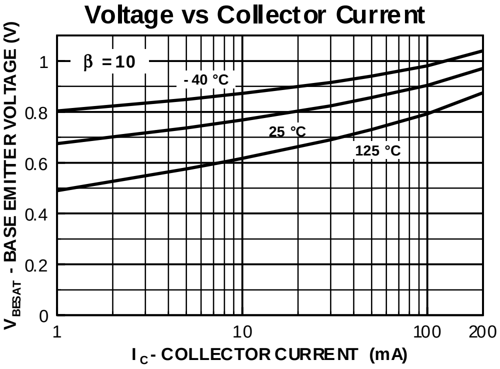
Typical Pulsed Current Gain vs Collector Current



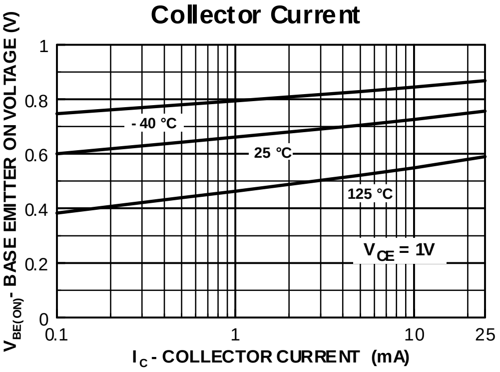
Collector-Emitter Saturation Voltage vs Collector Current



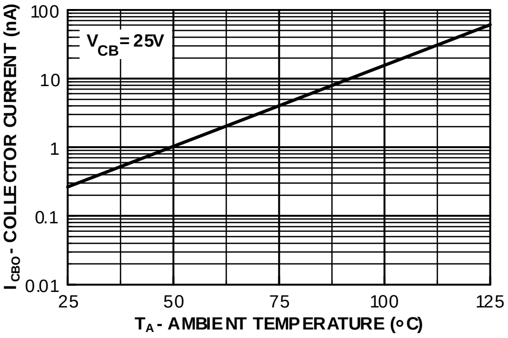
Base-Emitter Saturation Voltage vs Collector Current



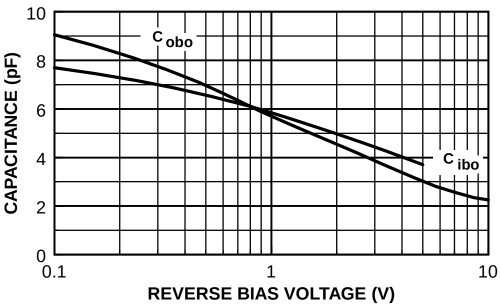
Base Emitter ON Voltage vs Collector Current



Collector-Cutoff Current vs Ambient Temperature



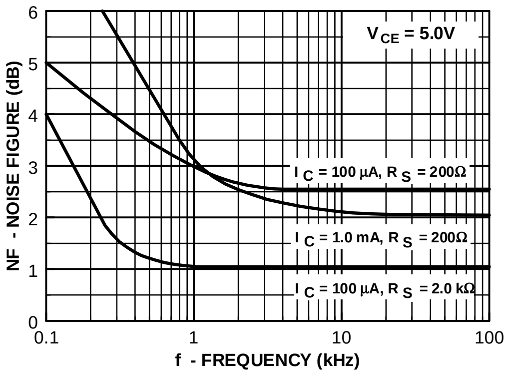
Common-Base Open Circuit Input and Output Capacitance vs Reverse Bias Voltage



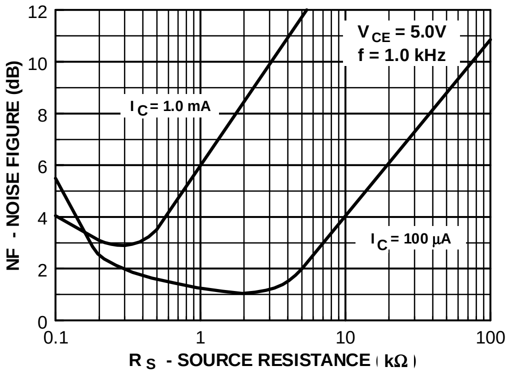
RATING CHARACTERISTIC CURVES (CHT4126GP)

Typical Characteristics

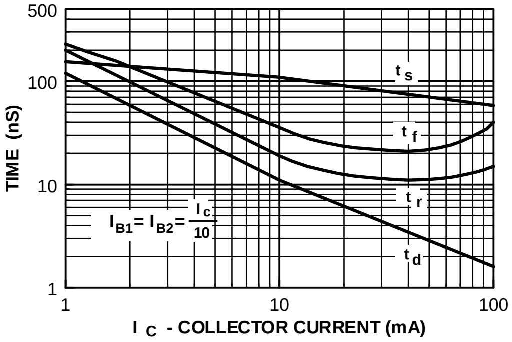
Noise Figure vs Frequency



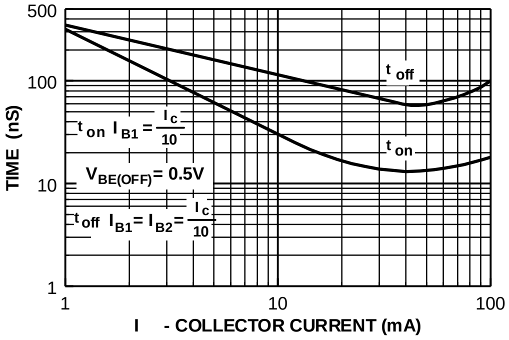
Noise Figure vs Source Resistance



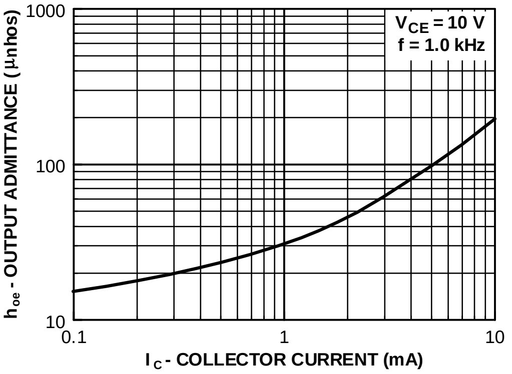
Switching Times vs Collector Current



Turn On and Turn Off Times vs Collector Current



Output Admittance



Current Gain