



CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT
EPITAXIAL Transistor**

VOLTAGE 20 Volts CURRENT 700 mAmpere

CHT8050GP

Halogens free devices

FEATURE

- * Small surface mounting type. (SOT-23)
- * High DC current .

CONSTRUCTION

- * NPN transistors in one package.

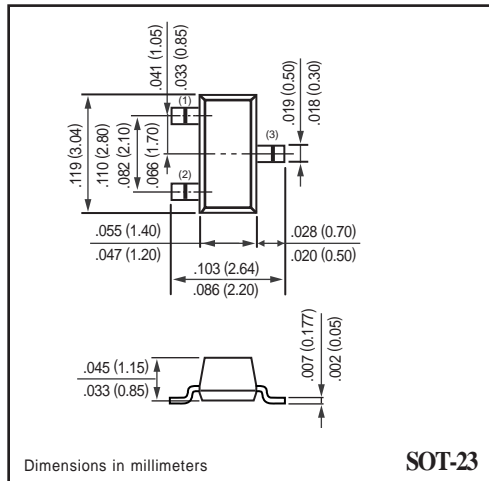
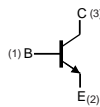
MARKING

- * D805
- * E805



SOT-23

CIRCUIT



Dimensions in millimeters

SOT-23

LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CB0}	collector-base voltage	open emitter	–	25	V
V _{CEO}	collector-emitter voltage	open base	–	20	V
V _{EBO}	emitter-base voltage	open collector	–	5	V
I _C	collector current (DC)		–	700	mA
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	–	225	mW
T _{stg}	storage temperature		–55	+150	°C
T _j	junction temperature		–	150	°C
T _{amb}	operating ambient temperature		–55	+150	°C

Note

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

2008-01

RATING CHARACTERISTIC CURVES (CHT8050GP)

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	collector-base breakdown voltage	$I_C = -10\mu\text{A}$; $I_E = 0\text{A}$	25	–	V
$V_{(BR)CEO}$	collector-emitter breakdown voltage	$I_C = -1\text{mA}$; $I_B = 0\text{A}$	20	–	V
$V_{(BR)EBO}$	emitter-base breakdown voltage	$I_E = -10\mu\text{A}$; $I_C = 0\text{A}$	5	–	V
I_{CBO}	collector cut-off current	$V_{CB} = 20\text{V}$	–	1.0	μA
I_{EBO}	emitter cut-off current	$V_{EB} = 5\text{V}$	–	100	nA
h_{FE}	DC current gain	$I_C = 150\text{ mA}$; $V_{CE} = 1\text{V}$	150	500	
V_{CEsat}	collector-emitter saturation	$I_C = 500\text{ mA}$; $I_B = 50\text{ mA}$	–	500	mV
V_{BEon}	base-emitter voltage	$I_C = 150\text{ mA}$; $V_{CE} = 1.0\text{V}$	–	1000	mV
C_{cb}	output capacitance	$V_{CB} = -10\text{V}$; $f = 1.0\text{MHz}$; $I_E = 0$	–	10	pF
f_T	transition frequency	$V_{CB} = 10\text{V}$; $I_C = 20\text{mA}$; $f = 100\text{MHz}$	150	–	MHz

2. h_{FE} : D Classification: 150–300
 E Classification: 250–500

RATING CHARACTERISTIC CURVES (CHT8050GP)

Figure 1. Collector-Emitter Saturation Voltage vs Collector Current

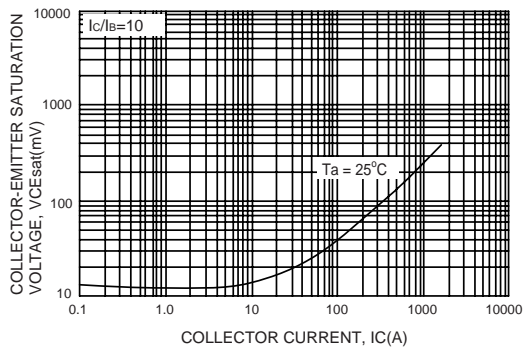


Figure 2. Base-Emitter Saturation Voltage vs Collector Current

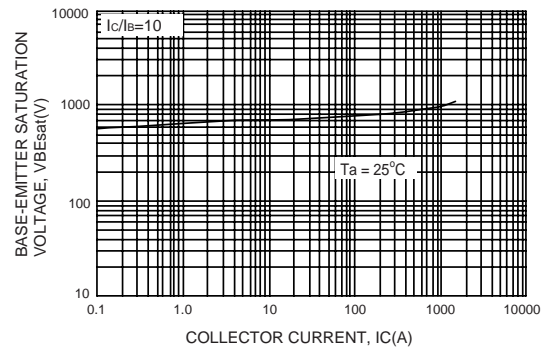


Figure 3. DC Current Gain

