



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SURFACE MOUNT
PNP Switching Transistor**

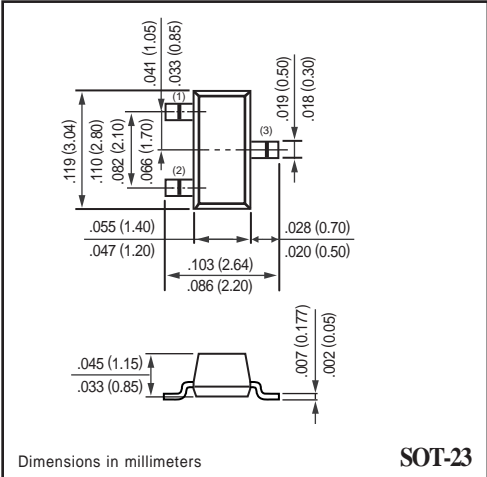
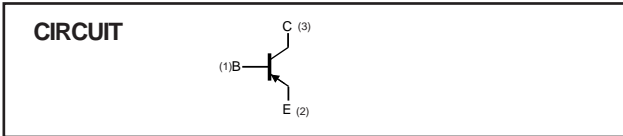
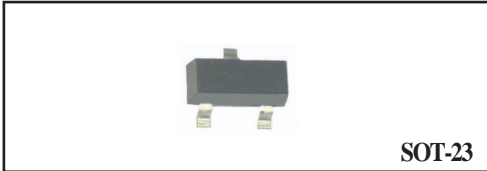
VOLTAGE 20 Volts CURRENT 3 Ampere

CHT5889GP

FEATURE
 * Small surface mounting type. (SOT-23)
 * Low Collector-Emitter saturation voltage.

CONSTRUCTION
 * PNP Silicon Transistor

MARKING
 * 5889



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	-	-20	V
V _{CEO}	collector-emitter voltage	open base	-	-20	V
V _{EBO}	emitter-base voltage	open collector	-	-7	V
I _c	collector current DC		-	-3.0	A
I _{CP}	collector current (Pulse)		-	-5.0	A
I _B	base current		-	-0.3	A
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	-	460	mW
T _{stg}	storage temperature		-55	+150	°C
T _j	junction temperature		-	150	°C

Note

1. FR-4 @ 100mm² ,1 oz. copper traces.

RATING CHARACTERISTIC CURVES (CHT5889GP)

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
BV_{CBO}	collector-base breakdown voltage	$I_E = 0; I_C = -100\text{ }\mu\text{A}$	-20	–	V
BV_{CEO}	collector-emitter breakdown voltage	$I_B = 0; I_C = -10\text{ mA}$	-20	–	V
BV_{EBO}	emitter-base breakdown voltage	$I_C = 0; I_E = -100\text{ }\mu\text{A}$	-7	–	V
I_{CBO}	collector cut-off current	$I_E = 0; V_{CB} = -20\text{ V}$	–	-100	nA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = -7\text{ V}$	–	-100	nA
h_{FE}	DC current gain	$V_{CE} = -2\text{ V}; I_C = -500\text{ mA}$ $V_{CE} = -2\text{ V}; I_C = -1600\text{ mA}$	200 100	500 –	
V_{CEsat}	collector-emitter saturation voltage	$I_C = -1600\text{ mA}, I_B = -53\text{ mA}$	–	-190	mV
V_{BEsat}	base-emitter saturation voltage	$I_C = -1600\text{ mA}, I_B = -53\text{ mA}$	–	-1.1	V
C_c	collector capacitance	$I_E = I_E = 0; V_{CB} = -10\text{ V}; f = 1\text{ MHz}$	–	40 _{Typ.}	pF
f_T	transition frequency	$I_E = 500\text{ mA}; V_{CE} = -2\text{ V};$	–	160 _{Typ.}	MHz

RATING CHARACTERISTIC CURVES (CHT5889GP)

Figure 1. Grounded Emitter Propagation Characteristics

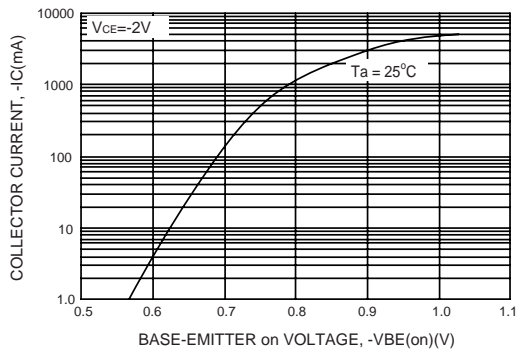


Figure 2. Collector-Emitter Saturation Voltage vs Collector Current

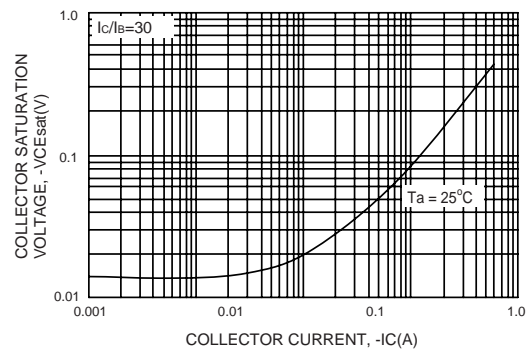


Figure 3. DC Current Gain

