



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
NPN SILICON Transistor**

VOLTAGE 160 Volts CURRENT 0.6 Ampere

**CHT5551XGP**

**APPLICATION**

- \* Telephony and professional communication equipment.
- \* Other switching applications.

**FEATURE**

- \* Suitable for high packing density.

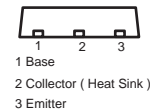
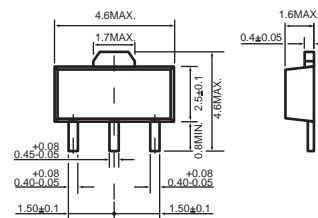
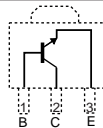
**CONSTRUCTION**

\*NPN SILICON Transistor



**SC-62/SOT-89**

**CIRCUIT**



Dimensions in millimeters

**SC-62/SOT-89**

**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	—	180	V
V <sub>CEO</sub>	collector-emitter voltage	open base	—	160	V
V <sub>EBO</sub>	emitter-base voltage	open collector	—	6.0	V
I <sub>C</sub>	collector current (DC)		—	600	mA
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	—	1200	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 CURVES ( CHT5551XGP )

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	357	K/W

#### Note

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

### CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$V_{CB} = 120\text{ V}$	–	50	nA
$I_{CBO}$	collector cut-off current	$V_{CB} = 120\text{ V}, T_A = 100^{\circ}\text{C}$	–	50	uA
$I_{EBO}$	emitter cut-off current	$V_{EB} = 4.0\text{ V}$	–	50	nA
$h_{FE}$	DC current gain	$I_C = 1.0\text{ mA}; V_{CE} = 5\text{ V}$ $I_C = 10\text{ mA}; V_{CE} = 5\text{ V}$ $I_C = 50\text{ mA}; V_{CE} = 5\text{ V}$	80 80 30	– 250 –	
$V_{CEsat}$	collector-emitter saturation voltage	$I_C = 10\text{ mA}; I_B = 1.0\text{ mA}$	–	0.15	V
		$I_C = 50\text{ mA}; I_B = 5.0\text{ mA}$	–	0.2	V
$V_{BEsat}$	base-emitter saturation voltage	$I_C = 10\text{ mA}; I_B = 1.0\text{ mA}$	–	1.0	V
		$I_C = 50\text{ mA}; I_B = 5.0\text{ mA}$	–	1.0	V
$C_{ob}$	collector capacitance	$I_E = I_e = 0; V_{CB} = 10\text{ V}; f = 1\text{ MHz}$	–	6.0	pF
$h_{fe}$		$V_{CE} = 10\text{ V}, I_C = 1.0\text{ mA}, f = 1.0\text{ KHz}$	50	200	
$f_T$	transition frequency	$I_C = 10\text{ mA}; V_{CE} = 10\text{ V}; f = 1.0\text{ MHz}$	100	300	MHz
F	noise figure	$I_C = 200\text{ mA}; V_{CE} = 5\text{ V}; R_S = 10\text{ }\Omega; f = 10\text{ Hz to }15.7\text{ KHz}$	–	8.0	dB