



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
PNP Switching Transistor**

VOLTAGE 60 Volts CURRENT 5 Ampere

**CHT5988ZGP**

**APPLICATION**

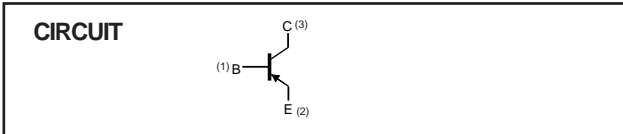
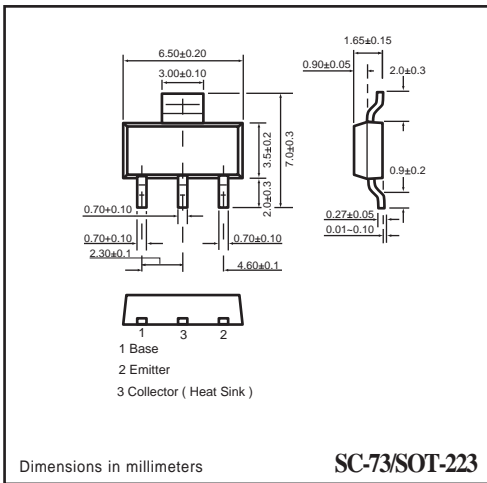
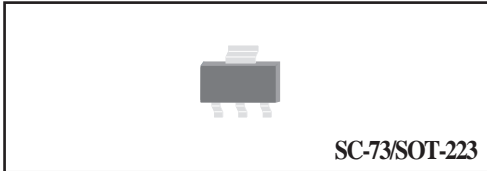
- \* DC/DC converters
- \* Supply line switching
- \* Battery charger
- \* Driver in low supply voltage applications

**FEATURE**

- \* Small flat package. ( SC-73/SOT-223 )
- \* High current (Max.=5A).
- \* Suitable for high packing density.
- \* Low voltage (Max.=60V) .

**CONSTRUCTION**

- \* PNP Switching Transistor



**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	-	-100	V
V <sub>CEO</sub>	collector-emitter voltage	open base	-	-60	V
V <sub>EBO</sub>	emitter-base voltage	open collector	-	-6	V
I <sub>C</sub>	collector current (DC)		-	-5	A
I <sub>CM</sub>	peak collector current		-	-15	A
I <sub>BM</sub>	peak base current		-	-1	A
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C;	-	2.0	W
T <sub>stg</sub>	storage temperature		-55	+150	°C
T <sub>j</sub>	junction temperature		-	150	°C
T <sub>amb</sub>	operating ambient temperature		-55	+150	°C

## RATING CHARACTERISTIC CURVES ( CHT5988ZGP )

### THEMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient		62.5	K/W

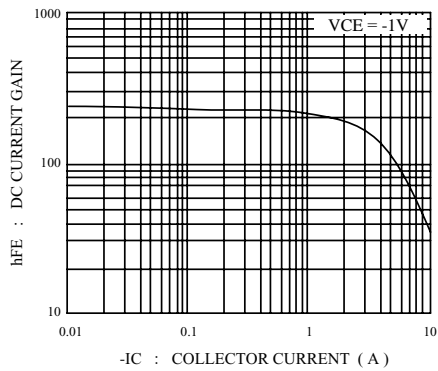
### CHARACTERISTICS

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

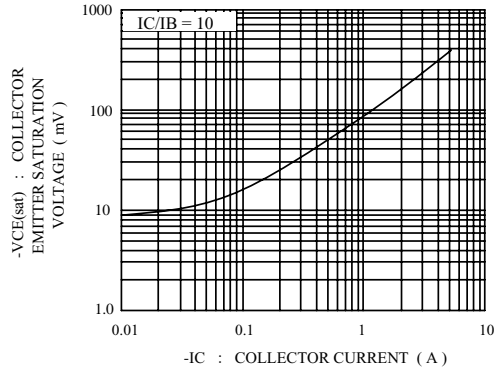
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}$	-100	-	V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}$	-60	-	V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -100\mu\text{A}$	-6	-	V
$I_{CBO}$	Collector Cut-Off Current	$V_{CB} = -80\text{V}$	-	-50	nA
$I_{EBO}$	Emitter Cut-Off Current	$V_{EB} = -6\text{V}$	-	-10	nA
$h_{FE}$	DC Current Gain	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	100	-	
		$V_{CE} = -1\text{V}, I_C = -2\text{A}$	120	300	
		$V_{CE} = -1\text{V}, I_C = -5\text{A}$	60	-	
		$V_{CE} = -1\text{V}, I_C = -10\text{A}$	10	-	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -100\text{mA}, I_B = -10\text{mA}$	-	-50	mV
		$I_C = -1\text{A}, I_B = -100\text{mA}$	-	-140	
		$I_C = -2\text{A}, I_B = -200\text{mA}$	-	-210	
		$I_C = -5\text{A}, I_B = -500\text{mA}$	-	-460	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5\text{A}, I_B = -500\text{mA}$	-	-1.27	V
$V_{BE(on)}$	Base-Emitter on Voltage	$V_{CE} = -1\text{V}, I_C = -5\text{A}$	-	-1.2	V
$f_r$	Transition Frequency	$V_{CE} = -10\text{V}, I_E = -100\text{mA}$	100	-	MHz
$C_{ob}$	Collector Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0\text{A}, f = 1\text{MHz}$	72(Typ.)		pF

## RATING CHARACTERISTIC CURVES ( CHT5988ZGP )

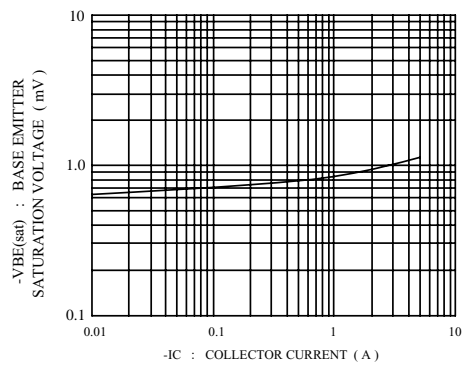
**DC Current Gain vs Collector Current**



**Collector Emitter Saturation Voltage vs cCollector Current**



**Base Emitter Saturation Voltage vs cCollector Current**



**Transision Frequency vs Emitter Current**

