



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
NPN SILICON Transistor**

VOLTAGE 100 Volts CURRENT 3 Ampere

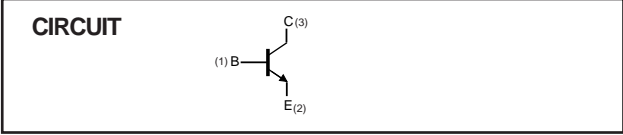
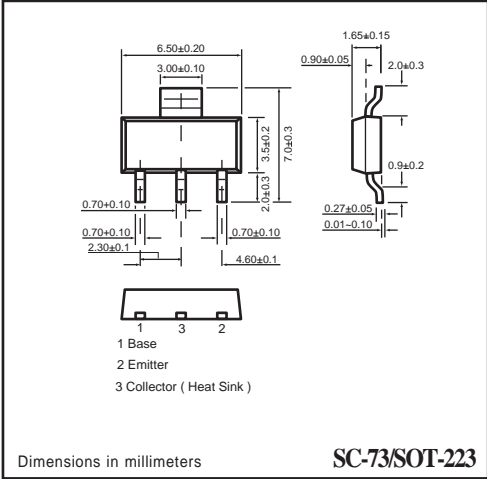
**CHT31CZGP**

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

**FEATURE**  
 \* Small flat package. ( SC-73/SOT-223 )  
 \* Suitable for high packing density.  
 \* High saturation current capability.

**CONSTRUCTION**  
 \* NPN SILICON Transistor

**MARKING**  
 ZAN



**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	—	100	V
V <sub>EBO</sub>	emitter-base voltage	open collector	—	5.0	V
I <sub>C</sub>	collector current (DC)		—	3	A
I <sub>CM</sub>	Peak Collector Current		—	6.0	A
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	—	2	W
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 ( CHT31CZGP )

### CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{CEO}$	collector cut-off current	$V_{CE} = 60\text{ V}$	–	300	$\mu\text{A}$
$I_{EBO}$	emitter cut-off current	$V_{EB} = 5.0\text{ V}$	–	1	$\text{mA}$
$h_{FE}$	DC current gain	$I_C = 1.0\text{ A}; V_{CE} = 4\text{ V}$ $I_C = 3.0\text{ A}; V_{CE} = 4\text{ V}$	25 10	– 100	
$V_{CEsat}$	collector-emitter saturation voltage	$I_C = 3.0\text{ A}, I_B = 375\text{ mA}$	–	1.2	$\text{V}$
$V_{BEON}$	base-emitter saturation voltage	$I_C = 3.0\text{ A}; V_{CE} = 4\text{ V}$	–	1.8	$\text{V}$
$f_T$	transition frequency	$I_C = 500\text{ mA}; V_{CE} = 10\text{ V};$ $f = 10\text{ MHz}$	3.0	–	$\text{MHz}$