



**CHENMKO ENTERPRISE CO.,LTD**

**CHT5824XPT**

*Lead free devices*

**SURFACE MOUNT  
NPN Silicon Transistor**

**VOLTAGE 60Volts CURRENT 3 Ampere**

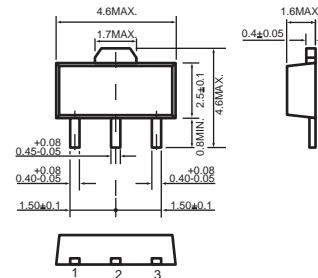
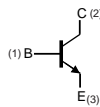
**FEATURE**

- \*Surface mount package. (SC-62/SOT-89)
- \*High speed switching
- \*Low saturation voltage
- \*Strong discharge power for inductive load and capacitance load



**SC-62/SOT-89**

**CIRCUIT**



- 1 Base
- 2 Collector ( Heat Sink )
- 3 Emitter

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	–	60	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)		–	3	A
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1 T <sub>amb</sub> ≤ 25 °C; note 2	–	500 2000	mW mW
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

**Note**

1. P<sub>w</sub>=100mS
2. Each terminal mounted on a recommended land.

2007-06

## RATING CHARACTERISTIC CURVES ( CHT5824XPT )

### CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$V_{CB} = 40V, I_E = 0$	–	1.0	$\mu\text{A}$
$I_{CEO}$	collector cut-off current	$V_{CE} = 50V, I_B = 0$	–	1.0	$\mu\text{A}$
$I_{EBO}$	emitter cut-off current	$V_{EB} = 4V, I_C = 0$	–	1.0	$\mu\text{A}$
$h_{FE}$	DC current gain	$I_C = 100\text{ mA}; V_{CE} = 2V$	120	390	
$V_{CE(sat)}$	collector-emitter saturation voltage	$I_C = 2000\text{ mA}; I_B = 200\text{ mA}$	–	0.5	V
$C_{ob}$	collector output capacitance	$I_E = 0; V_{CB} = 10V; f = 1\text{ MHz}$	20(typ)	–	pF
$f_T$	transition frequency	$I_C = 100\text{ mA}; V_{CE} = 10V$ $f = 10\text{ MHz}$	200(typ)	–	MHz

**Note** : Pulse test:  $t_p \leq 300\mu\text{Sec}$ ;  $\delta \leq 0.02$ .