



CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT NPN SILICON Transistor

VOLTAGE 100 Volts CURRENT 5 Ampere

CHT122ZPT

Lead free devices

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

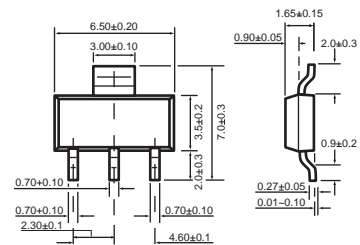
- * NPN SILICON Transistor

MARKING

ZBN



SC-73/SOT-223

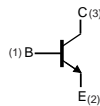


- 1 Base
- 2 Emitter
- 3 Collector (Heat Sink)

Dimensions in millimeters

SC-73/SOT-223

CIRCUIT



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CB0}	collector-base voltage	open emitter	—	100	V
V _{CE0}	collector-emitter voltage	open base	—	100	V
V _{EB0}	emitter-base voltage	open collector	—	5.0	V
I _C	collector current (DC)		—	5.0	A
I _{CM}	Peak Collector Current		—	8.0	A
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	—	2	W
T _{stg}	storage temperature		-65	+150	°C
T _j	junction temperature		—	150	°C
T _{amb}	operating ambient temperature		-65	+150	°C

Note

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

RATING CHARACTERISTIC CURVES (CHT122ZPT)

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I_{CEO}	collector cut-off current	$V_{CE} = 50\text{ V}$	–	500	μA
I_{CBO}	collector cut-off current	$V_{CB} = 100\text{ V}$	–	200	μA
I_{EBO}	emitter cut-off current	$V_{EB} = 5.0\text{ V}$	–	2.0	mA
h_{FE}	DC current gain	$I_C = 500\text{ mA}; V_{CE} = 3\text{ V}$ $I_C = 3.0\text{ A}; V_{CE} = 3\text{ V}$	1000 1000	– –	
V_{CEsat}	collector-emitter saturation voltage	$I_C = 3.0\text{ A}; I_B = 12\text{ mA}$	–	2.0	V
		$I_C = 5.0\text{ A}; I_B = 20\text{ mA}$	–	4.0	V
V_{BEON}	base-emitter saturation voltage	$I_C = 3.0\text{ A}; V_{CE} = 3.0\text{ V}$	–	2.5	V
C_{ob}	collector capacitance	$I_E = I_B = 0; V_{CB} = 10\text{ V}; f = 1\text{ MHz}$	–	200	pF
f_T	transition frequency	$I_C = 3.0\text{ A}; V_{CE} = 4\text{ V};$ $f = 1.0\text{ MHz}$	4.0	–	MHz