



CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT
NPN SILICON Transistor**

VOLTAGE 300 Volts CURRENT 0.5 Ampere

CHTA42ZPT

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.

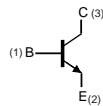
CONSTRUCTION

*NPN SILICON Transistor

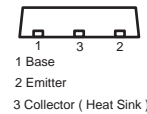
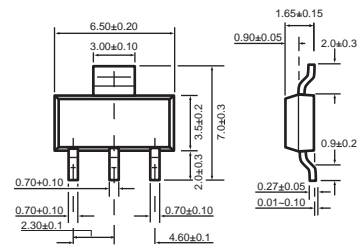
MARKING

ZHN

CIRCUIT



SC-73/SOT-223



Dimensions in millimeters

SC-73/SOT-223

LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter	—	300	V
V _{CEO}	collector-emitter voltage	open base	—	300	V
V _{EBO}	emitter-base voltage	open collector	—	6	V
I _C	collector current (DC)		—	500	mA
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 (CHTA42ZPT)

THEMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	104	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	$V_{CB} = 200\text{ V}$	–	100	nA
I_{EBO}	emitter cut-off current	$V_{EB} = 6.0\text{ V}$	–	100	nA
h_{FE}	DC current gain	$I_C = 1\text{ mA}; V_{CE} = 10\text{ V}$ $I_C = 10\text{ mA}; V_{CE} = 10\text{ V}$ $I_C = 30\text{ mA}; V_{CE} = 10\text{ V}$	25 40 40	–	–
$V_{CE(sat)}$	collector-emitter saturation voltage	$I_C = 20\text{ mA}, I_B = 2.0\text{ mA}$	–	0.5	V
$V_{BE(sat)}$	base-emitter saturation voltage	$I_C = 20\text{ mA}, I_B = 2.0\text{ mA}$	–	0.9	V
f_T	transition frequency	$I_C = 10\text{ mA}; V_{CE} = 20\text{ V};$ $f = 100\text{ MHz}$	50	–	
C_{ob}	collector capacitance	$V_{CB} = 20\text{ V}, I_E = 0, f = 1.0\text{ MHz}$	–	3.0	pF