CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT
NPN SILICON Transistor

VOLTAGE 300 Volts CURRENT 0.5 Ampere

CHTA42ZGP

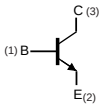
APPLICATION
* Telephony and proferssional communction equipment.
* Other switching applications.

FEATURE
* Small flat package. (SC-73/SOT-223)
* Suitable for high packing density.

CONSTRUCTION
*NPN SILICON Transistor

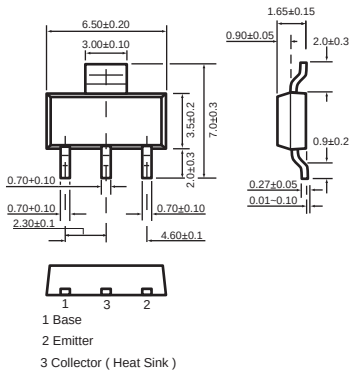
MARKING
ZHN

CIRCUIT





SC-73/SOT-223



1 Base
2 Emitter
3 Collector (Heat Sink)

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	$T_{amb} \leq 25$ °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 (CHTA42ZGP)

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j\text{-}a}$	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 °C unless otherwise speciÞed.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I_{CBO}	collector cut-off current	V_{CB} = 200 V	–	100	nA
I_{EBO}	emitter cut-off current	V_{EB} = 6 . 0 V	–	100	nA
h_{FE}	DC current gain	I_C = 1 mA; V_{CE} = 10V I_C = 10 mA; V_{CE} =10V I_C = 30 mA; V_{CE} =10V	25 40 40	–	–
$V_{CE(sat)}$	collector-emitter saturation voltage	I_C=20mA, I_B=2.0mA	–	0.5	V
$V_{BE(sat)}$	base-emitter saturation voltage	I_C=20mA, I_B=2.0mA	–	0.9	V
f_T	transition frequency	I_C = 10 mA; V_{CE}=20V ; f = 100MHz	50	–	
Cob	collector capacitance	V_{CB}=20V, I_E=0, f=1.0MHZ	–	3.0	pF