



CHENMKO ENTERPRISE CO.,LTD

CHT5988ZPT

**SURFACE MOUNT
PNP Switching Transistor**

VOLTAGE 60 Volts CURRENT 5 Ampere

Lead free devices

APPLICATION

- * DC/DC converters
- * Supply line switching
- * Battery charger
- * Driver in low supply voltage applications

FEATURE

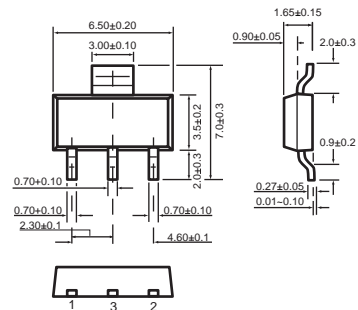
- * Small flat package. (SC-73/SOT-223)
- * High current (Max.=5A).
- * Suitable for high packing density.
- * Low voltage (Max.=60V) .

CONSTRUCTION

- * PNP Switching Transistor



SC-73/SOT-223

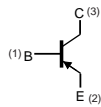


- 1 Base
- 2 Emitter
- 3 Collector (Heat Sink)

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 _{CBO}	collector-base voltage	open emitter	-	-100	V
V _{CEO}	collector-emitter voltage	open base	-	-60	V
V _{EBO}	emitter-base voltage	open collector	-	-6	V
I _C	collector current (DC)		-	-5	A
I _{CM}	peak collector current		-	-15	A
I _{BM}	peak base current		-	-1	A
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C;	-	2.0	W
T _{stg}	storage temperature		-55	+150	°C
T _j	junction temperature		-	150	°C
T _{amb}	operating ambient temperature		-55	+150	°C

RATING CHARACTERISTIC CURVES (CHT5988ZPT)

THEMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient		62.5	K/W

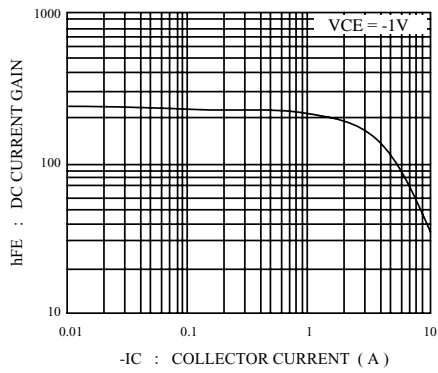
CHARACTERISTICS

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

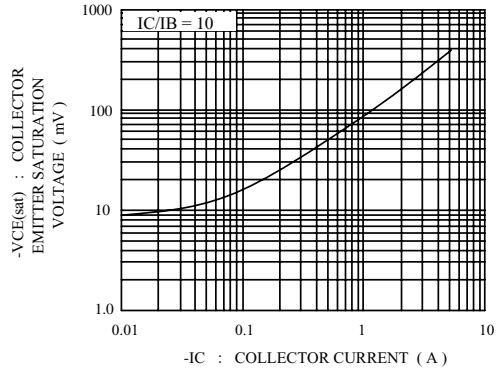
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}$	-100	-	V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}$	-60	-	V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -100\mu\text{A}$	-6	-	V
I_{CBO}	Collector Cut-Off Current	$V_{CB} = -80\text{V}$	-	-50	nA
I_{EBO}	Emitter Cut-Off Current	$V_{EB} = -6\text{V}$	-	-10	nA
h_{FE}	DC Current Gain	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	100	-	
		$V_{CE} = -1\text{V}, I_C = -2\text{A}$	120	300	
		$V_{CE} = -1\text{V}, I_C = -5\text{A}$	60	-	
		$V_{CE} = -1\text{V}, I_C = -10\text{A}$	10	-	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -100\text{mA}, I_B = -10\text{mA}$	-	-50	mV
		$I_C = -1\text{A}, I_B = -100\text{mA}$	-	-140	
		$I_C = -2\text{A}, I_B = -200\text{mA}$	-	-210	
		$I_C = -5\text{A}, I_B = -500\text{mA}$	-	-460	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5\text{A}, I_B = -500\text{mA}$	-	-1.27	V
$V_{BE(on)}$	Base-Emitter on Voltage	$V_{CE} = -1\text{V}, I_C = -5\text{A}$	-	-1.2	V
f_r	Transition Frequency	$V_{CE} = -10\text{V}, I_E = -100\text{mA}$	100	-	MHz
C_{ob}	Collector Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0\text{A}, f = 1\text{MHz}$	72(Typ.)		pF

RATING CHARACTERISTIC CURVES (CHT5988ZPT)

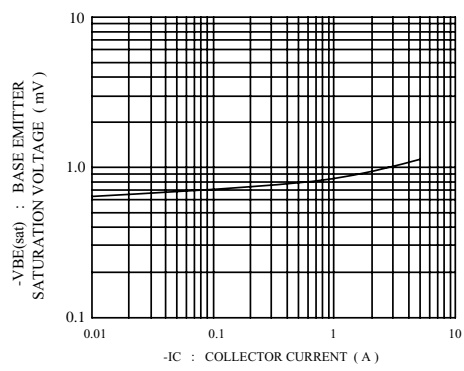
DC Current Gain vs Collector Current



Collector Emitter Saturation Voltage vs cCollector Current



Base Emitter Saturation Voltage vs cCollector Current



Transision Frequency vs Emitter Current

