



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SMALL FLAT  
PNP Epitaxial Transistor**

VOLTAGE 30 Volts CURRENT 3 Ampere

**CHT9435ZGP**

**APPLICATION**

\* Power driver and Dc to DC convertor .

**FEATURE**

- \* Small flat package. (SC-73/SOT-223)
- \* Low saturation voltage  $V_{CE(sat)} = -0.275V(\text{max.})(I_c = -1.2A)$
- \* High speed switching time:  $t_{stg} = 1.0\mu\text{Sec}(\text{typ.})$
- \*  $PC = 1.56\text{ W}$  (mounted on ceramic substrate).
- \* High saturation current capability.

**CONSTRUCTION**

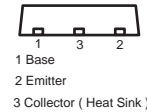
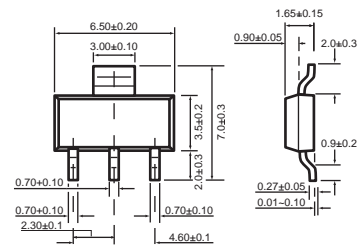
\* PNP Switching Transistor

**MARKING**

\* 9435Z



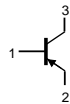
**SC-73/SOT-223**



Dimensions in millimeters

**SC-73/SOT-223**

**CIRCUIT**



**MAXIMUM RATINGS** ( At  $T_A = 25^\circ\text{C}$  unless otherwise noted )

RATINGS	CONDITION	SYMBOL	MIN.	MAX.	UNITS
Collector - Base Voltage	Open Emitter	$V_{CB}$	-	-45	Volts
Collector - Emitter Voltage	Open Base	$V_{CE}$	-	-30	Volts
Emitter - Base Voltage	Open Collector	$V_{EB}$	-	-6	Volts
Collector Current DC		$I_c$	-	-3	Amps
Peak Collector Current		$I_{CM}$	-	-5	Amps
Peak Base Current		$I_{BM}$	-	-1.0	Amps
Total Power Dissipation	$T_A \leq 25^\circ\text{C}$ ; Note 1	$P_{TOT}$	-	1560	mW
Storage Temperature		$T_{STG}$	-55	+150	$^\circ\text{C}$
Junction Temperature		$T_J$	-	+150	$^\circ\text{C}$
Operating Ambient Temperature		$T_{AMB}$	-55	+150	$^\circ\text{C}$

**Note**

1. Total  $P_d$  mounted on 1" sq. (645 sq.mm) Collector pad on FR-4 material.
2. Measured at Pulse Width 300 us, Duty Cycle 2%.

## RATING CHARACTERISTIC CURVES ( CHT9435ZGP )

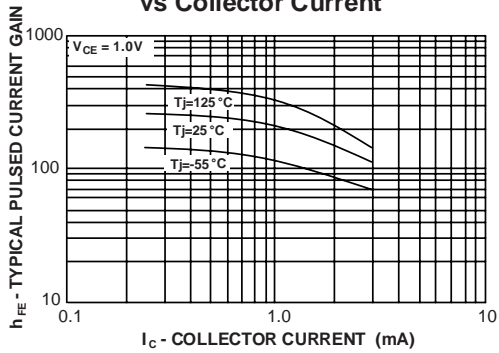
**CHARACTERISTICS** ( At  $T_A = 25^\circ\text{C}$  unless otherwise noted )

PARAMETERS	CONDITION	SYMBOL	MIN.	TYPE	MAX.	UNITS
Collector Cut-off Current	$I_E=0; V_{CE}=-25\text{V}$	$I_{CER}$	-	-	-20	$\mu\text{A}$
Emitter Cut-off Current	$I_C=0; V_{EB}=-5\text{V}$	$I_{EBO}$	-	-	-10	$\mu\text{A}$
DC Current Gain	$V_{CE}=-1\text{V}; I_C=-0.8\text{A}$ $V_{CE}=-1\text{V}; I_C=-1.2\text{A}$ $V_{CE}=-1\text{V}; I_C=-3.0\text{A}$	$h_{FE}$	125 110 90	220 - -	- - -	
Collector-Emitter Saturation Voltage	$I_C=-0.8\text{A}; I_B=-0.02\text{A}$ $I_C=-1.2\text{A}; I_B=-0.02\text{A}$ $I_C=-3.0\text{A}; I_B=-0.3\text{A}$	$V_{CEsat}$	- - -	-0.155 - -	-0.21 -0.275 -0.55	Volts
Base-Emitter Saturatio Voltage	$I_C=-3.0\text{A}; I_B=-0.3\text{A}$	$V_{BEsat}$	-	-	-1.25	Volts
Base-Emitter On Voltage	$I_C=-1.2\text{A}; V_{CE}=-4.0\text{V}$	$V_{BEON}$	-	-	-1.10	Volts
Output Capacitance	$I_E=I_C=0; V_{CB}=-10\text{V};$ $f=1\text{MHz}$	$C_{ob}$	-	100	150	$\text{pF}$
Input Capacitance	$V_{EB}=-8\text{V}$	$C_{ib}$	-	135	-	$\text{pF}$
Transition Frequency	$I_C=-0.5\text{A}; V_{CE}=-10\text{V};$ $f=1\text{MHz}$	$f_T$	-	110	-	$\text{MHz}$

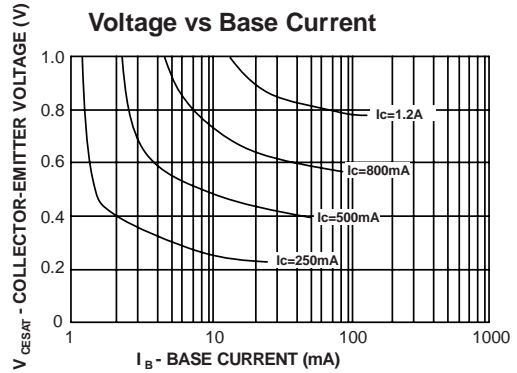
## RATING CHARACTERISTIC CURVES ( CHT9435ZGP )

### Typical Electrical Characteristics

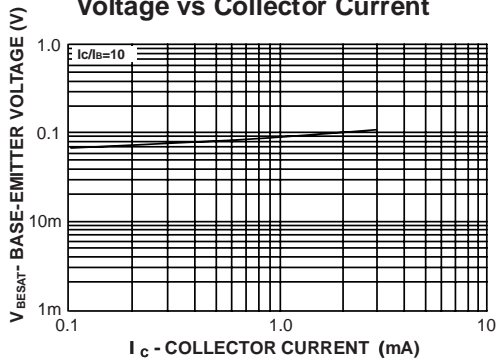
**Typical Pulsed Current Gain vs Collector Current**



**Collector-Emitter Saturation Voltage vs Base Current**



**Base-Emitter Saturation Voltage vs Collector Current**



**Collector-Emitter Saturation Voltage vs Collector Current**

