CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SMALL FLAT
NPN Epitaxial Transistor

VOLTAGE 60 Volts CURRENT 6 Amperes

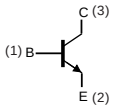
CHT5113PGP

APPLICATION
* High current amplifier.

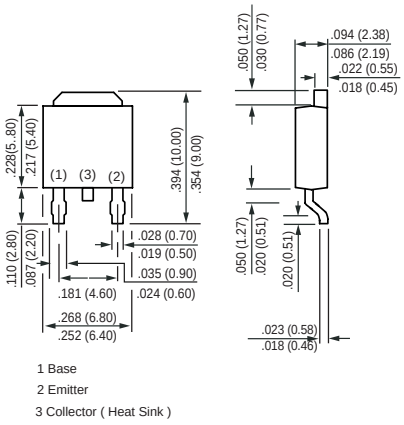
FEATURE
* Small flat package. (DPAK)
* Low saturation voltage $V_{CE(sat)}$=0.55V(Max.)(I_C/I_B=6A/0.3A)

CONSTRUCTION
* NPN Cilicon Transistor

CIRCUIT



DPAK



1 Base
2 Emitter
3 Collector (Heat Sink)

Dimensions in inches and (millimeters)

DPAK

MAXIMUM RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS	CONDITION	SYMBOL	CHT5113PGP	UNITS
Collector - Base Voltage	Open Emitter	V_{CBO}	150	Volts
Collector - Emitter Voltage	Open Base	V_{CEO}	60	Volts
Emitter - Base Voltage	Open Collector	V_{EBO}	6	Volts
Collector Current DC		I_C	6	Amps
Peak Collector Current		I_{CM}	20	Amps
Total Power Dissipation	$T_A \leq 25^oC$	P_{TOT}	1.0	W
Storage Temperature		T_{STG}	-55 to +150	^oC
Junction Temperature		T_J	+150	^oC
Operating Ambient Temperature		T_{AMB}	-55 to +150	^oC

2007-05

RATING CHARACTERISTIC CURVES (CHT5113PGP)

CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

PARAMETERS	CONDITION	SYMBOL	MIN.	TYPE	MAX.	UNITS
Collector-Base breakdown voltage	I_C=100uA	BV_{CBO}	150	170	-	Volts
Collector-Emitter breakdown voltage	I_C=10mA	BV_{CEO}	60	70	-	Volts
Emitter-Base breakdown voltage	I_E=100uA	BV_{EBO}	6	8	-	Volts
Collector Cut-off Current	I_E=0; V_{CB}=120V	I_{CBO}	-	-	50	nA
Emitter Cut-off Current	I_C=0; V_{EB}=6V	I_{EBO}	-	-	10	nA
DC Current Gain	V_{CE}=1V; I_C=10mA V_{CE}=1V; I_C=2A V_{CE}=1V; I_C=5A V_{CE}=1V; I_C=10A	h_{FE}	100 120 75 -	- 200 100 30	- 300 - -	
Collector-Emitter Saturation Voltage	I_C=100mA; I_B=5mA I_C=1A; I_B=50mA I_C=2A; I_B=100mA I_C=6A; I_B=300mA	V_{CEsat}	- - - -	20 80 150 400	50 120 220 550	mVolts
Base-Emitter Saturation Voltage	I_C=6A; I_B=300mA	V_{BEsat}	-	1.15	1.3	Volts
Base-Emitter On Voltage	V_{CE}=1V; I_C=6A	V_{BEon}	-	1.05	1.2	Volts
Collector Output Capacitance	I_E=ie=0; V_{CB}=10V; f=1MHz	C_{ob}	-	50	-	pF
Transition Frequency	I_E=-100mA; V_{CE}=10V	f_T	-	150	-	MHz

RATING CHARACTERISTIC CURVES (CHT5113PGP)

Figure 1. Collector-Emitter Saturation Voltage vs Collector Current

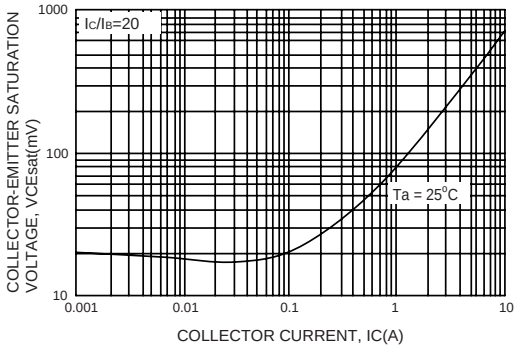


Figure 2. Base-Emitter Saturation Voltage vs Collector Current

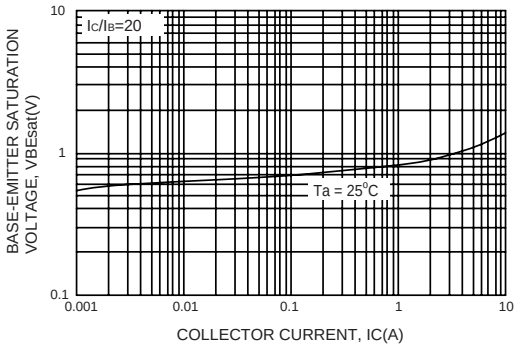


Figure 3. DC Current Gain