



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SMALL FLAT
PNP Epitaxial Transistor**

VOLTAGE 60 Volts CURRENT 5 Ampere

3N1151GP

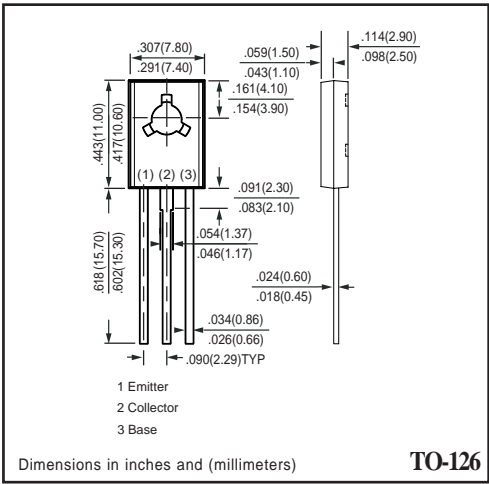
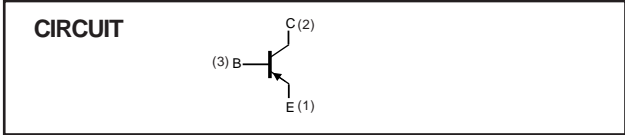
APPLICATION
* Power driver and Dc to DC convertor .

FEATURE
* Small flat package. (TO-126)
* Low collector-emitter saturation voltage
* Large collector current
* High power dissipation

CONSTRUCTION
* PNP Switching Transistor



TO-126



TO-126

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	CONDITION	SYMBOL	MIN.	MAX.	UNITS
Collector - Base Voltage	Open Emitter	V _{CB0}	-	-60	Volts
Collector - Emitter Voltage	Open Base	V _{CE0}	-	-60	Volts
Emitter - Base Voltage	Open Collector	V _{EB0}	-	-7	Volts
Collector Current DC		I _c	-	-5	Amps
Collector Power Dissipation	T _A ≤ 25°C	P _{TOT}	-	1.25	W
Storage Temperature		T _{STG}	-55	+150	°C
Junction Temperature		T _J	-	+150	°C

ELECTRICAL CHARACTERISTIC (3N1151GP)

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

PARAMETERS	CONDITION	SYMBOL	MIN.	TYPE	MAX.	UNITS
Collector Cut-off Current	$I_E=0; V_{CB}=-50\text{V}$	I_{CBO}	-	-	-10	μA
Emitter Cut-off Current	$I_C=0; V_{EB}=-7\text{V}$	I_{EBO}	-	-	-10	mA
DC Current Gain	$I_C=-0.1\text{A}, V_{CE}=-1\text{V}$ $I_C=-2\text{A}, V_{CE}=-1\text{V}$ $I_C=-5\text{A}, V_{CE}=-2\text{V}$	h_{FE}	60 100 50	- - -	- 400 -	
Collector-Emitter Saturation Voltage	$I_C=-2\text{A}; I_B=-0.2\text{A}$	V_{CEsat}	-	-	-0.3	Volts
Base-Emitter Saturatio Voltage	$I_C=-2\text{A}; I_B=-0.2\text{A}$	V_{BEsat}	-	-	-1.2	Volts

SWITCHING TIMES (Between 10% and 90% levels)

PARAMETERS	CONDITION	SYMBOL	MIN.	TYPE	MAX.	UNITS
Turn-on Time	$V_{CC}=-10\text{V}, I_C=-2\text{A}$	t_{on}	-	-	1.0	μSec
Storage Time	$I_{B1}=I_{B2}=-15\text{mA}$	t_s	-	-	2.5	μSec
Fall Time	$R_L=5\text{ ohm}$	t_f	-	-	1.0	μSec

Note :

1. Pulse test: $t_p \leq 300\mu\text{Sec}$; $\delta \leq 0.02$.
2. $h_{FE}(2)$ Classification O: 100 to 200, Y: 160 to 320, G: 200 to 400.

RATING CHARACTERISTIC CURVES (3N1151GP)

Typical Electrical Characteristics

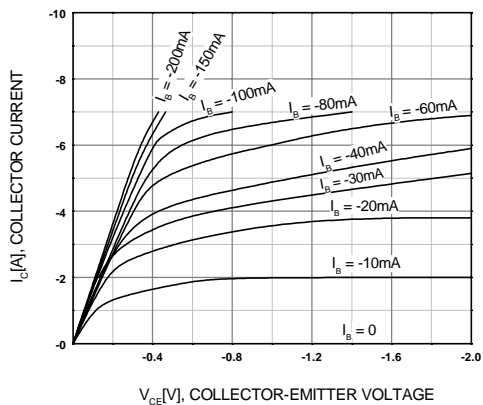


Figure 1. Static Characteristic

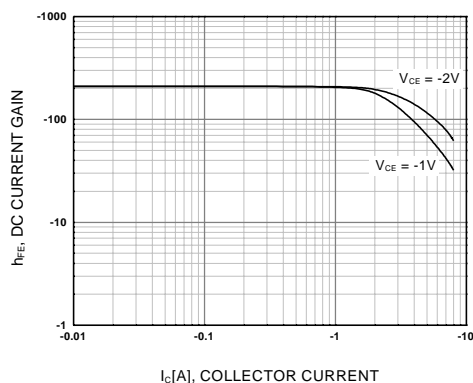
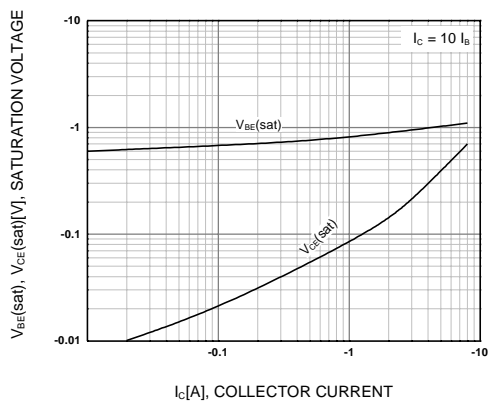


Figure 2. DC current Gain



**Figure 3. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage**

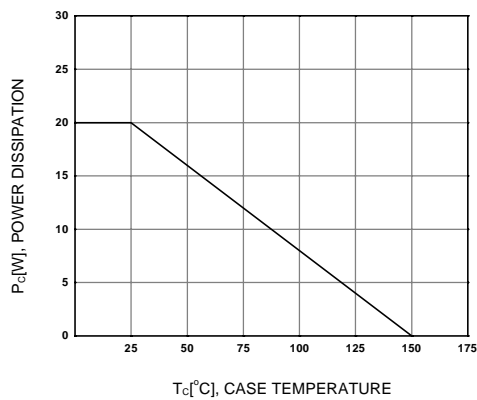


Figure 4. Power Derating