



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SURFACE MOUNT
NPN Silicon Transistor**

VOLTAGE 60Volts CURRENT 10 Ampere

T10N60GP

APPLICATION

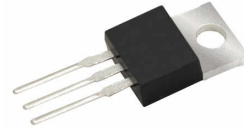
- * General purpose applications.
- * Other switching applications.

FEATURE

- * Package. (TO-220)
- * DC Current Gain Specified to $I_C=10A$
- * High Current Gain-Bandwidth Product : $f_r=2MHz$ (Min.)

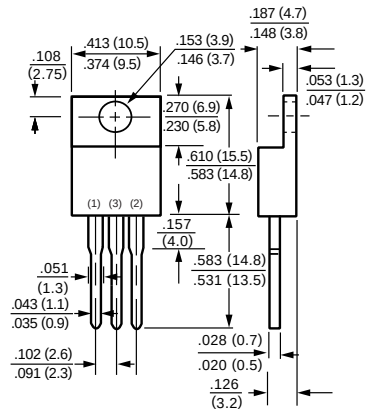
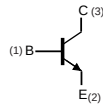
CONSTRUCTION

- *NPN Silicon Transistor



TO-220

CIRCUIT



Dimensions in inches and (millimeters)

TO-220

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	—	70	V
V_{CEO}	collector-emitter voltage	open base	—	60	V
V_{EBO}	emitter-base voltage	open collector	—	5	V
I_C	collector current (DC)		—	10	A
P_{tot}	total power dissipation	$T_{amb} = 25\text{ }^{\circ}C$	—	2	W
T_{stg}	storage temperature		—	+150	$^{\circ}C$
T_j	junction temperature		—55	150	$^{\circ}C$

2008-08

Note

1. These ratings are limiting values which the serviceability of any semiconductor device may be impaired

RATING CHARACTERISTIC CURVES (T10N60GP)

CHARACTERISTICS

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

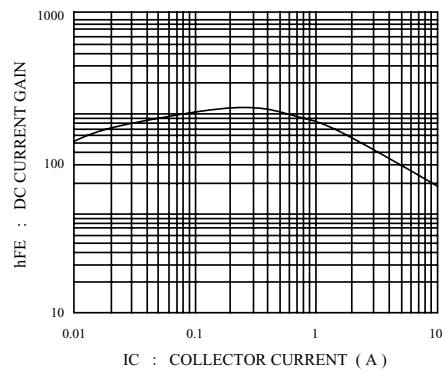
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{CBO}	collector-base voltage	$I_C = 1\text{mA}$, $I_E = 0$	70	–	V
V_{CEO}	collector-emitter voltage	$I_C = 200\text{mA}$, $I_B = 0$	60	–	V
V_{EBO}	emitter-base voltage	$I_E = 1\text{mA}$, $I_C = 0$	5	–	V
I_{CBO}	collector cut-off current	$V_{CB} = 70\text{V}$, $I_E = 0$	–	1	mA
I_{EBO}	emitter cut-off current	$V_{EB} = 5\text{V}$, $I_C = 0$	–	5	mA
h_{FE}	DC current gain	$I_C = 4\text{ A}$; $V_{CE} = 4\text{V}$ $I_C = 10\text{ A}$; $V_{CE} = 4\text{V}$	20 5	100 –	
$V_{CE(sat)}$	collector-emitter saturation voltage	$I_C = 4\text{ A}$; $I_B = 0.4\text{ A}$ $I_C = 10\text{ A}$; $I_B = 3.3\text{ A}$	– –	1.1 8	V V
V_{BE}	base-emitter voltage	$I_C = 4\text{ A}$; $V_{CE} = 4\text{ V}$		1.8	V
f_T	transition frequency	$I_C = 500\text{ mA}$; $V_{CE} = 10\text{ V}$;	2	–	MHz

Note :

Pulse test: $t_p \leq 300\mu\text{Sec}$; $\delta \leq 0.02$.

RATING CHARACTERISTIC CURVES (T10N60PT)

DC Current Gain vs Collector Current



Collector Emitter Saturation Voltage vs Collector Current

