



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
NPN Silicon Transistor**

VOLTAGE 60Volts CURRENT 10 Ampere

**T10N60GP**

**APPLICATION**

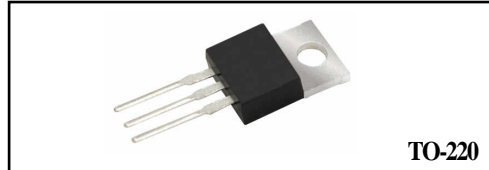
- \* General purpose applications.
- \* Other switching applications.

**FEATURE**

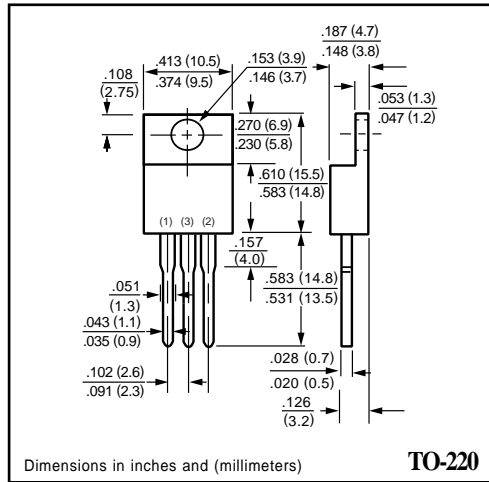
- \* Package. (TO-220)
- \* DC Current Gain Specified to  $I_c=10A$
- \* High Current Gain-Bandwidth Product :  $f_T=2MHz$  (Min.)

**CONSTRUCTION**

- \*NPN Silicon Transistor

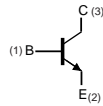


**TO-220**



**TO-220**

**CIRCUIT**



**LIMITING VALUES**

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{CB0}$	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	$T_{amb} = 25\text{ }^\circ\text{C}$	-	2	W
$T_{stg}$	storage temperature		-	+150	$^\circ\text{C}$
$T_j$	junction temperature		-55	150	$^\circ\text{C}$

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 specified.

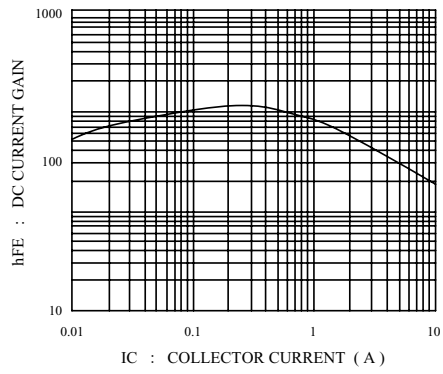
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{CBO}$	collector-base voltage	$I_C = 1\text{ mA}$ , $I_E = 0$	70	–	V
$V_{CEO}$	collector-emitter voltage	$I_C = 200\text{ mA}$ , $I_B = 0$	60	–	V
$V_{EBO}$	emitter-base voltage	$I_E = 1\text{ mA}$ , $I_C = 0$	5	–	V
$I_{CBO}$	collector cut-off current	$V_{CB} = 70\text{ V}$ , $I_E = 0$	–	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:  $t_p \leq 300\text{ }\mu\text{Sec}$ ;  $\delta \leq 0.02$ .

## RATING CHARACTERISTIC CURVES ( T10N60PT )

DC Current Gain vs Collector Current



Collector Emitter Saturation Voltage vs Collector Current

