BU406

NPN Silicon Transistor

General Description

The BU406 is a silicon Epitaxial Planar NPN transistor.

It is a fast switching device for use in horizontal deflection output stages of large screens MTV receivers with 110º CRT.

Product Summary

VCBO	VCEO	IC
300V	100V	6A

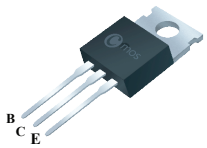
Applications

- Horizontal Deflection For Monochrome TV

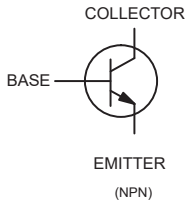
Features

- NPN Transistorw
- High Switching Speed
- RoHS Compliant

TO-220 Pin Configuration



TO-220
(BU406)



MAXIMUM RATINGS

Symbol	Parameter	Rating	Units
V_{CBO}	Collector−Base Voltage	300	V
V_{CEO}	Collector−Emitter Voltage	100	V
V_{EBO}	Emitter−Base Voltage	5	V
I_C	Collector Current	6	A
I_B	Base Current	3	A
P_D	Total Power Dissipation @ Tc = 25℃	65	W
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature Range	-55 to +150	℃

Electrical Characteristics (Tc=25℃, unless otherwise noted)

Symbol	Characteristic	Min.	Typ.	Max.	Unit
$V_{CEO\,(sus)}$	Collector−Emitter Sustaining Voltage (I_C = 30 mA, I_B = 0)	100	---	---	V
I_{EBO}	Emitter cut-off current (V_{EB} = 5 V, I_C = 0)	---	---	1	mA
$V_{CE(sat)}$	Collector-emitter saturation voltage [1] (I_C = 6A, I_B = 0.6A)	---	---	1.5	V
$V_{BE(sat)}$	Base-emitter saturation voltage [1] (I_C = 6A, I_B = 0.6A)	---	---	2	V
T_{off}	Turn-off Time (Ic = 5 A , I_B=0.5A)	---	---	0.75	μs
h_{FE}	DC Current Gain [1] (I_C=0.3A , V_{CE}= 4V) (I_C=3A , V_{CE}= 4V)	 30 15	 --- 60	 --- 200	
f_T	Current Gain Bandwidth Product (I_C = 500 mA , V_{CE} = 10 V)	3	---	---	MHz

1. Pulse Test: Pulse Width ≤300 μs, Duty Cycle ≤2%.

This product has been designed and qualified for the counsumer market.
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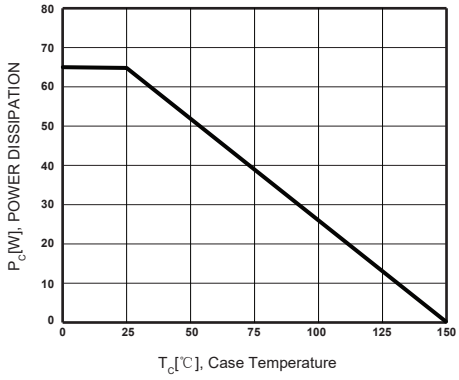
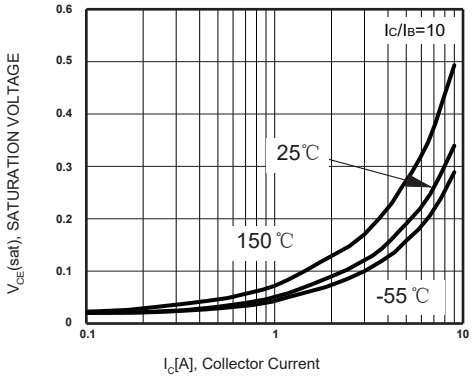
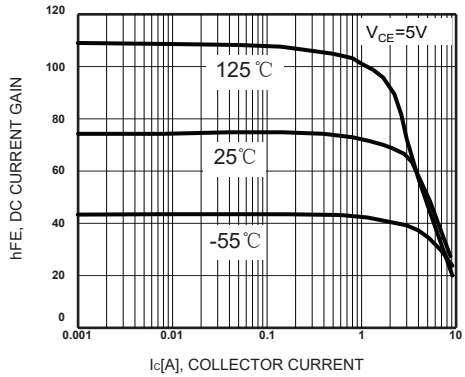
Typical Characteristics



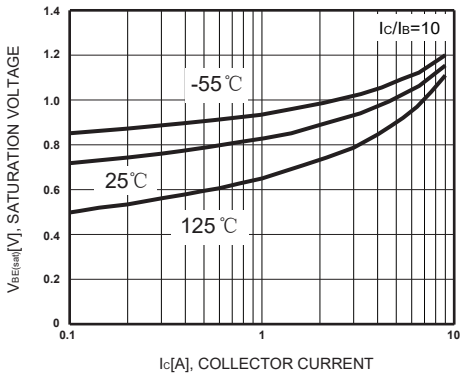
Power Derating



Collector-Emitter Saturation Voltage



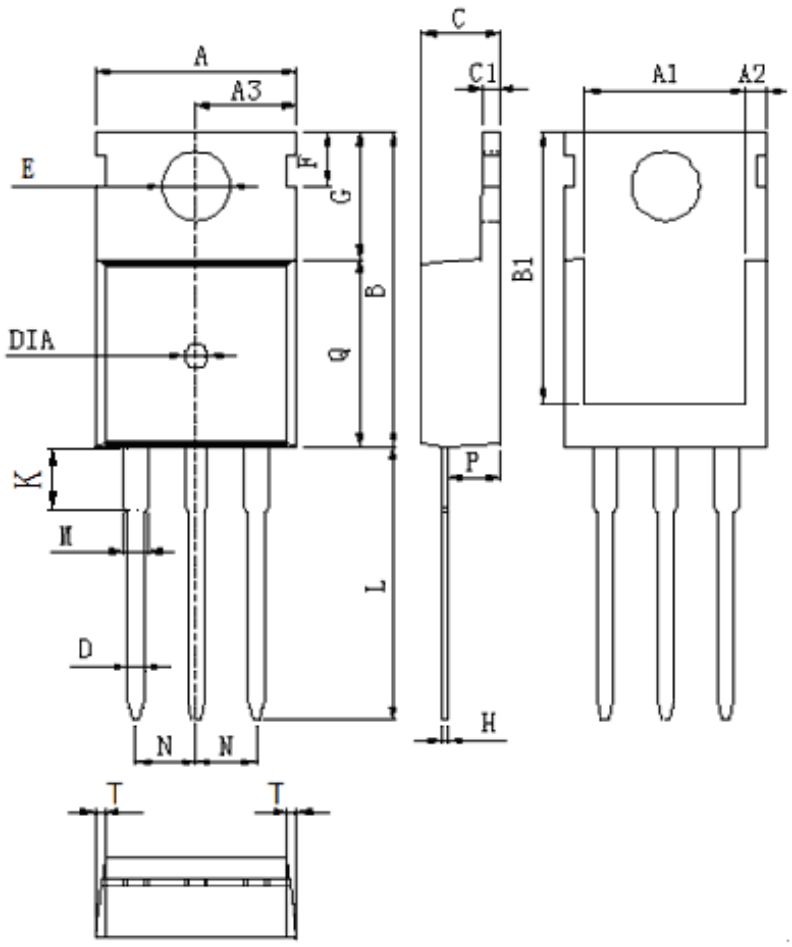
DC current Gain



Base-Emitter Saturation Voltage

Package Dimension

TO-220 Unit :mm



DIM	MILLIMETERS
A	10.0±0.3
A1	8.64±0.2
A2	1.15±0.1
A3	5.0±0.2
B	15.8±0.4
B1	13.2±0.3
C	4.56±0.1
C1	1.3±0.2
D	0.8±0.2
E	3.6±0.2
F	2.95±0.3
G	6.5±0.3
H	0.5±0.1
K	3.1±0.2
L	13.2±0.4
M	1.25±0.1
N	2.54±0.1
P	2.4±0.3
Q	9.0±0.3
T	W:0.35
DIA	⊙1.5(deep 0.2)