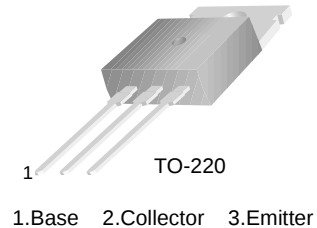


BU406/406H/408

High Voltage Switching

- Use In Horizontal Deflection Output Stage



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current (DC)	7	A
I_{CP}	Collector Current (Pulse)	10	A
I_B	Base Current	4	A
P_C	Collector Dissipation	60	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
I_{CES}	Collector Cut-off Current	$V_{CE} = 400\text{V}, V_{BE} = 0$ $V_{CE} = 250\text{V}, V_{BE} = 0$ $V_{CE} = 250\text{V}, V_{BE} = 0 @ T_C=150^\circ\text{C}$		5 100 1	mA μA mA
I_{EBO}	Emitter Cut-off Current	$V_{BE} = 6\text{V}, I_C = 0$		1	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage : BU406 : BU406H : BU408	$I_C = 5\text{A}, I_B = 0.5\text{A}$ $I_C = 5\text{A}, I_B = 0.8\text{A}$ $I_C = 6\text{A}, I_B = 1.2\text{A}$		1 1 1	V V V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage : BU406 : BU406H : BU408	$I_C = 5\text{A}, I_B = 0.5\text{A}$ $I_C = 5\text{A}, I_B = 0.5\text{A}$ $I_C = 6\text{A}, I_B = 1.2\text{A}$		1.2 1.2 1.5	V V V
f_T	Current Gain Bandwidth Product	$V_{CE} = 10\text{V}, I_C = 0.5\text{A}$	10		MHz
t_{OFF}	Turn OFF Time : BU406 : BU406H : BU408	$I_C = 5\text{A}, I_B = 0.5\text{A}$ $I_C = 5\text{A}, I_B = 0.8\text{A}$ $I_C = 6\text{A}, I_B = 1.2\text{A}$		0.75 0.4 0.4	μs μs μs

Typical Characteristics

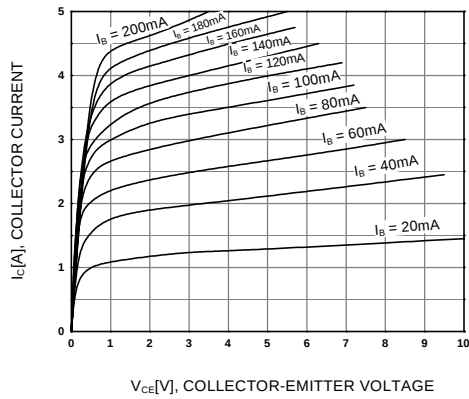


Figure 1. Static Characteristic

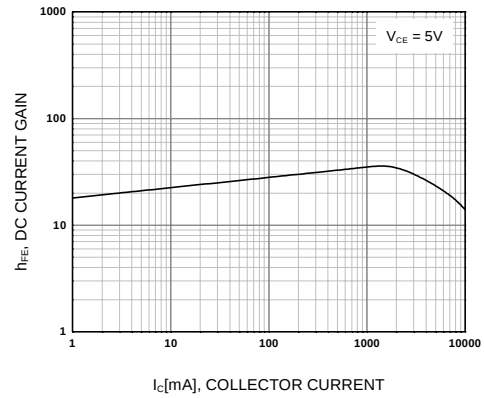


Figure 2. DC current Gain

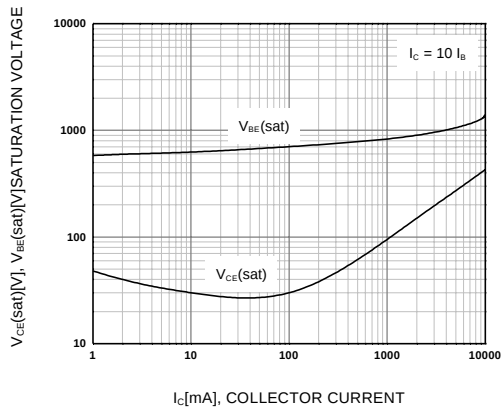


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

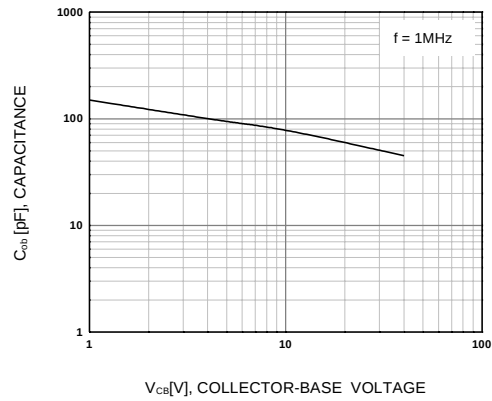


Figure 4. Collector Output Capacitance

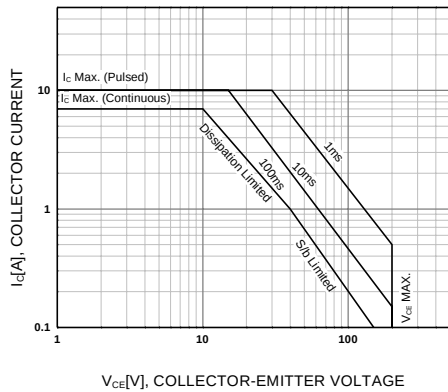


Figure 5. Safe Operating Area

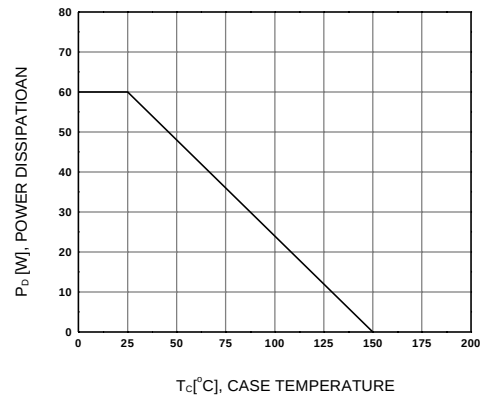


Figure 6. Power Derating

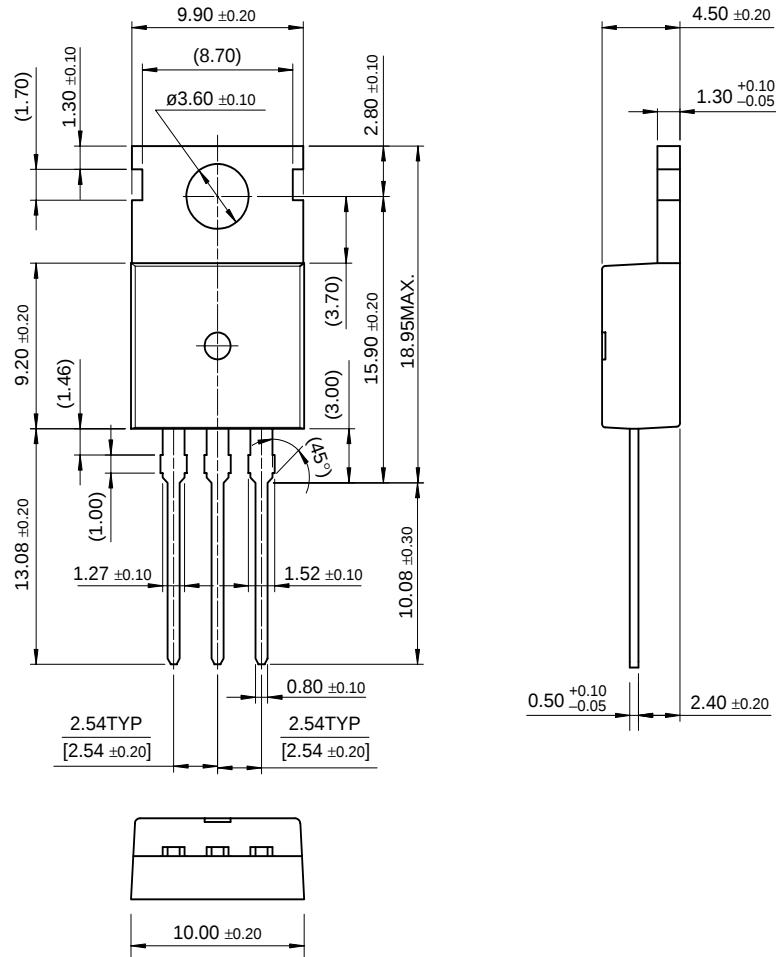
Typical Characteristics (Continued)

Figure 7. Static Characteristic

Figure 8. DC current Gain

Package Dimensions

TO-220



Dimensions in Millimeters

BU406/406H/408