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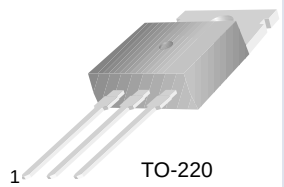
FAIRCHILD SEMICONDUCTOR TM

BU406/406H/408

High Voltage Switching

- Use In Horizontal Deflection Output Stage



TO-220

1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°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	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

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

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Typical Characteristics

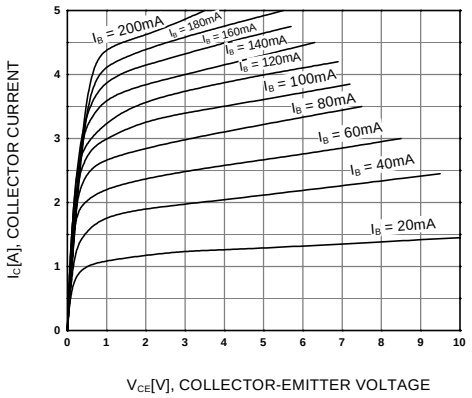

Figure 1. Static Characteristic

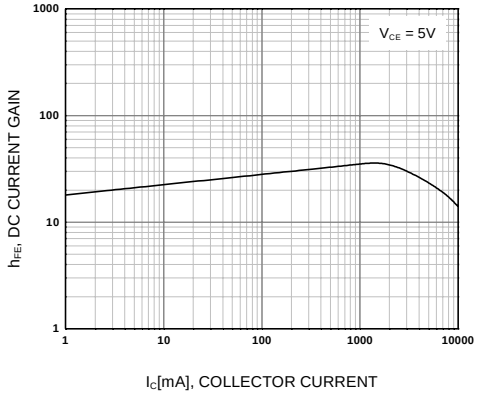

Figure 2. DC current Gain

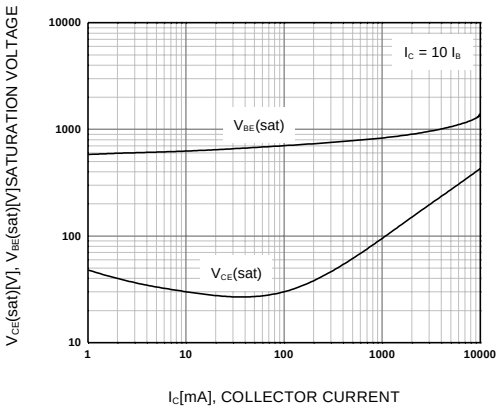

Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

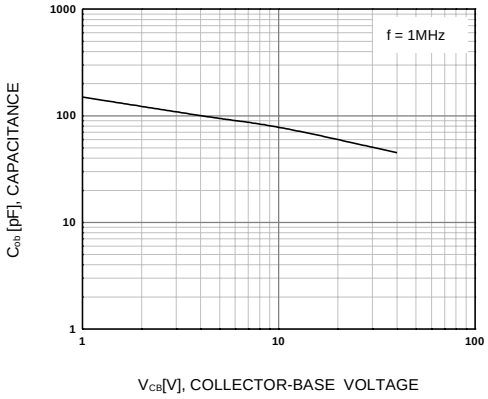

Figure 4. Collector Output Capacitance

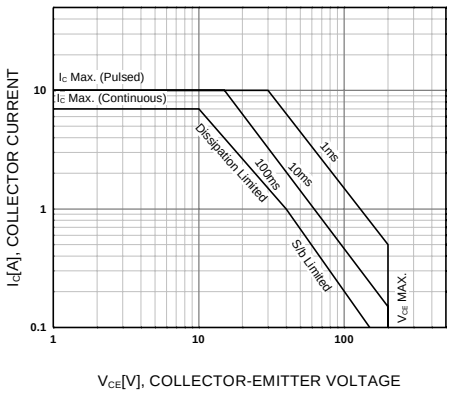

Figure 5. Safe Operating Area

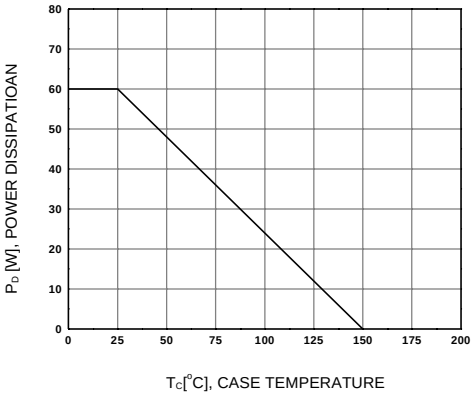

Figure 6. Power Derating

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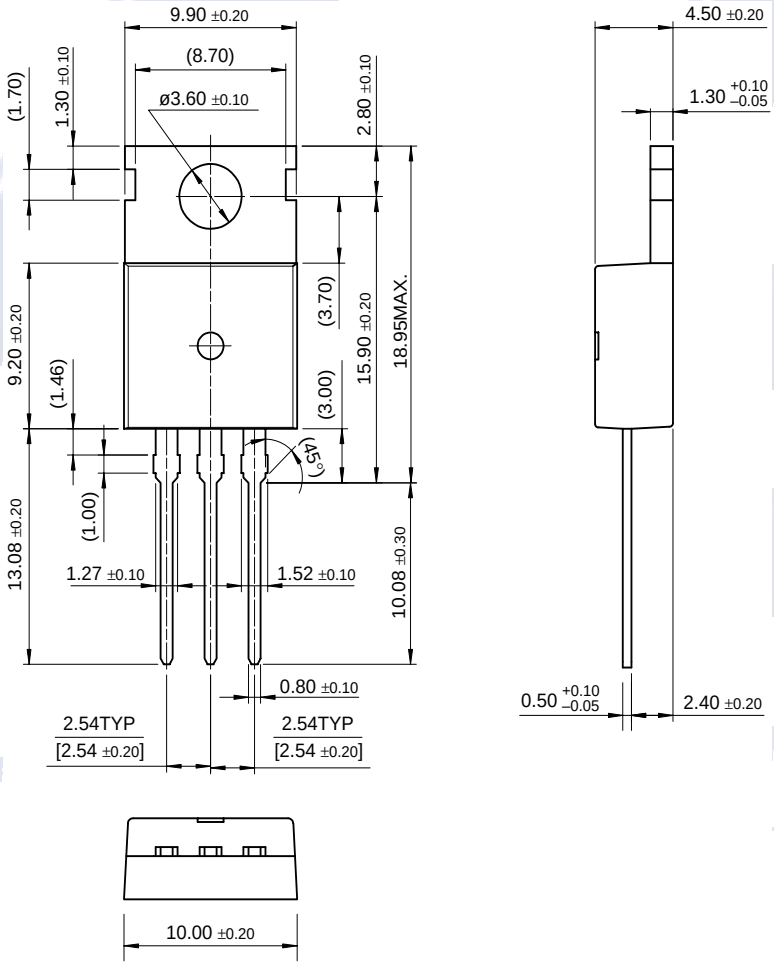
Package Demensions

TO-220



Dimensions in Millimeters

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