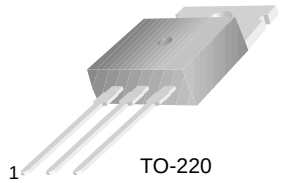
FAIRCHILD SEMICONDUCTOR™

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

Typical Characteristics

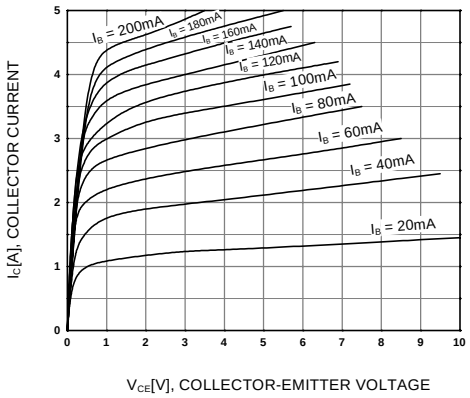


Figure 1. Static Characteristic

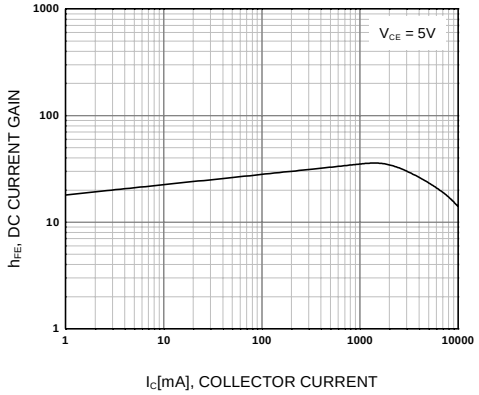


Figure 2. DC current Gain

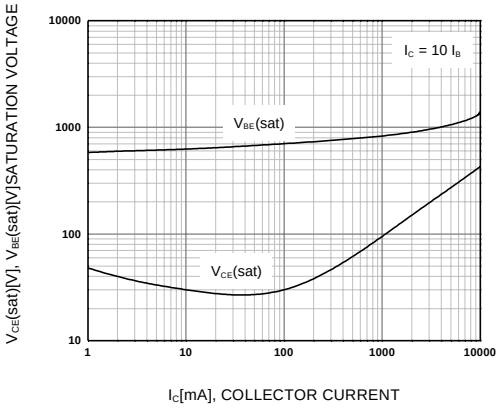


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

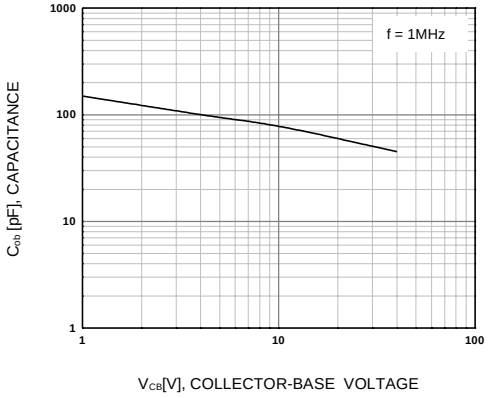


Figure 4. Collector Output Capacitance

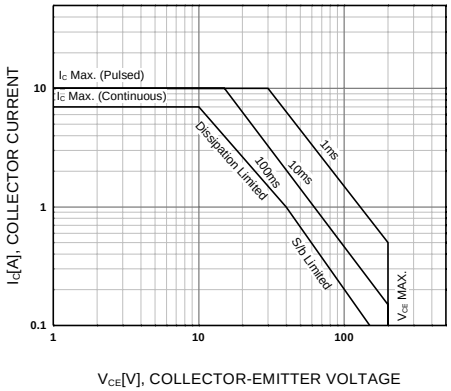


Figure 5. Safe Operating Area

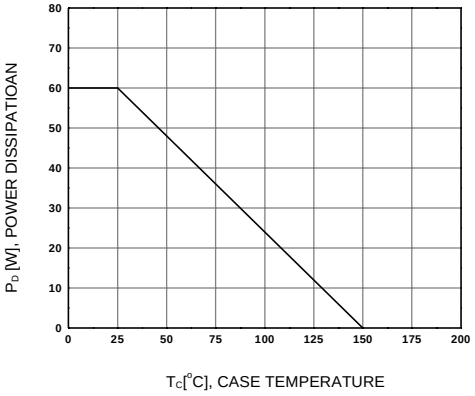


Figure 6. Power Derating

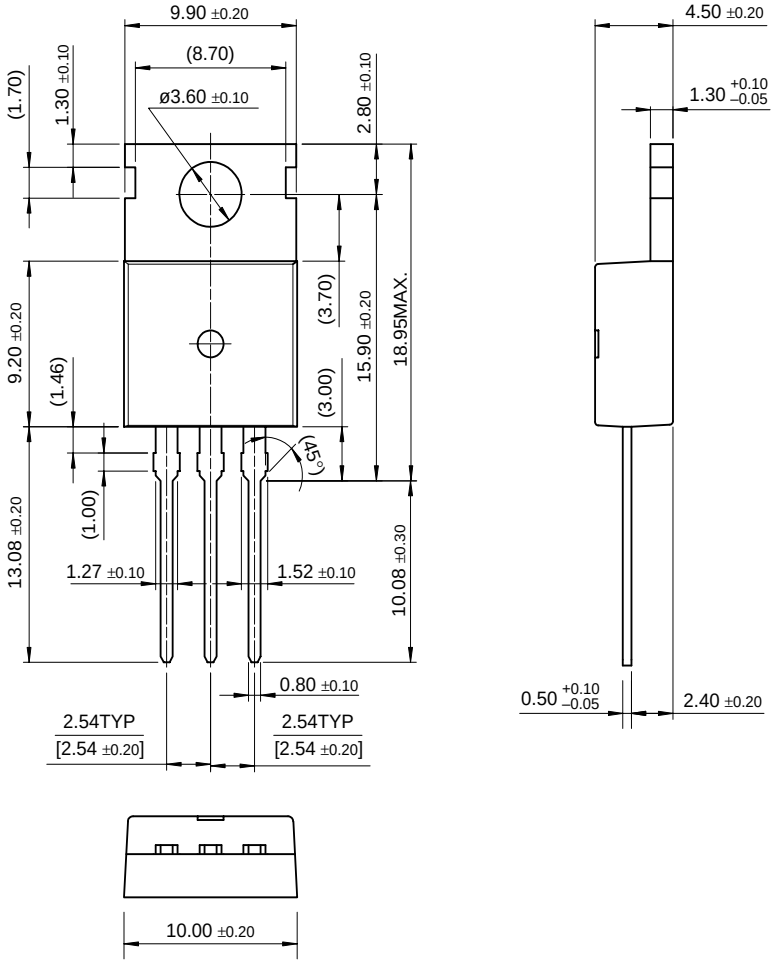
Typical Characteristics (Continued)

Figure 7. Static Characteristic

Figure 8. DC current Gain

Package Demensions

TO-220



Dimensions in Millimeters

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