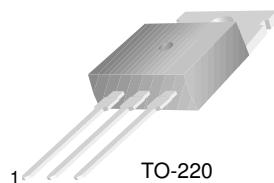


## BU407/407H

### High Voltage Switching

- Use In Horizontal Deflection Output Stage



TO-220  
1.Base 2.Collector 3.Emitter

### NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	330	V
$V_{CEO}$	Collector-Emitter Voltage	150	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 ( $T_C=25^\circ\text{C}$ )	60	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	- 65 ~ 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	$V_{CE} = 330\text{V}, V_{BE} = 0$		5	mA
		$V_{CE} = 200\text{V}, V_{BE} = 0$		100	$\mu\text{A}$
		$V_{CE} = 200\text{V}, V_{BE} = 0 @ T_C = 150^\circ\text{C}$		1	mA
$I_{EBO}$	Emitter Cut-off Current	$V_{BE} = 6\text{V}, I_C = 0$		1	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	: BU407 $I_C = 5\text{A}, I_B = 0.5\text{A}$		1	V
		: BU407H $I_C = 5\text{A}, I_B = 0.8\text{A}$		1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	: BU407 $I_C = 5\text{A}, I_B = 0.5\text{A}$		1.2	V
		: BU407H $I_C = 5\text{A}, I_B = 0.8\text{A}$		1.2	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	: BU407 $I_C = 5\text{A}, I_B = 0.5\text{A}$		0.75	$\mu\text{s}$
		: BU407H $I_C = 5\text{A}, I_B = 0.8\text{A}$		0.4	$\mu\text{s}$

# Typical Characteristics

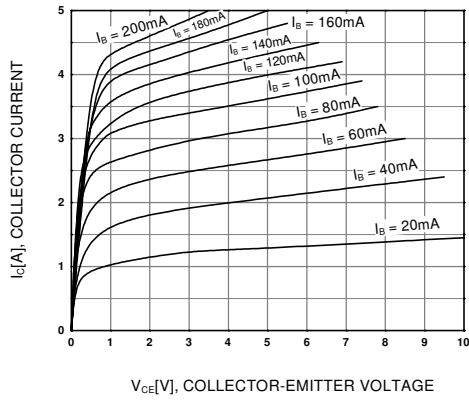


Figure 1. Static Characteristic

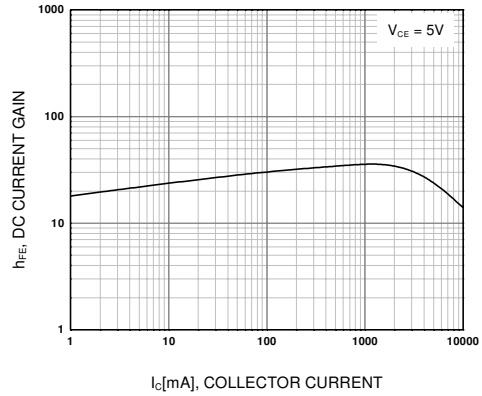


Figure 2. DC current Gain

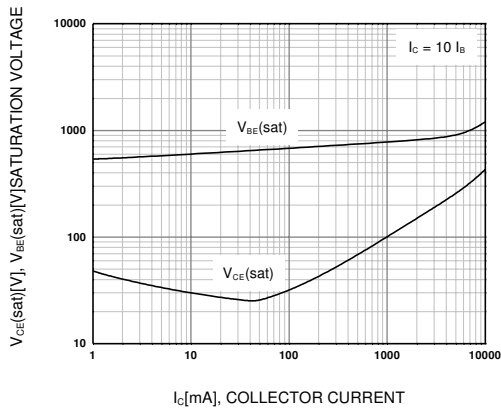


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emmitter Saturation Voltage

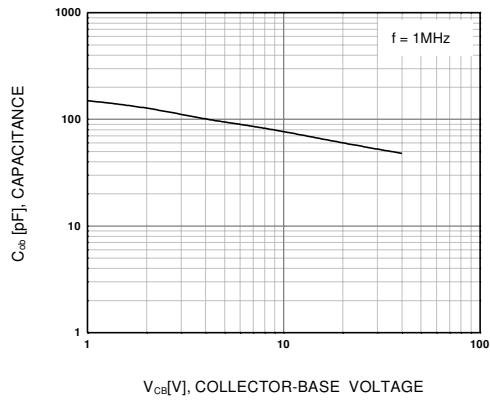


Figure 4. Collector Output Capacitance

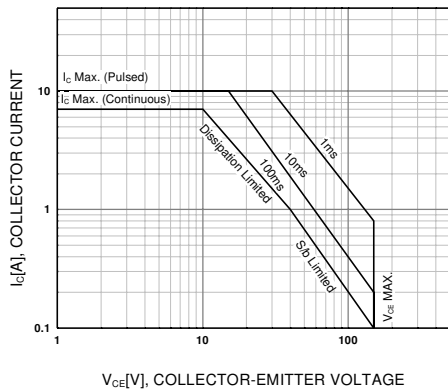


Figure 5. Safe Operating Area

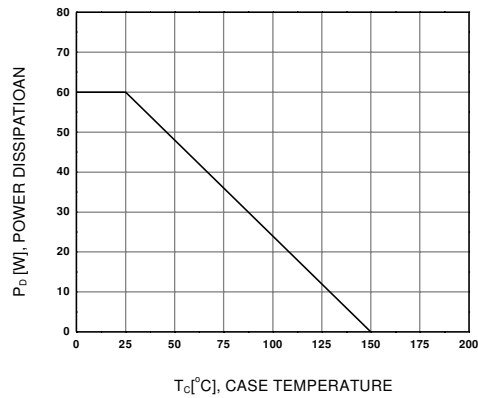
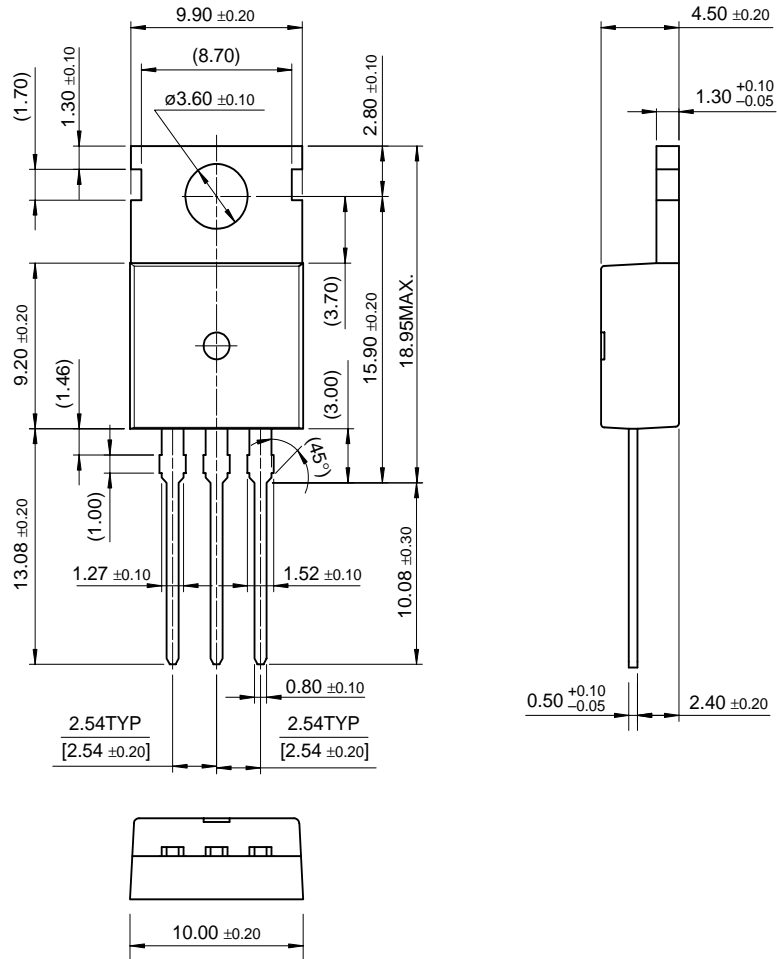


Figure 6. Power Derating

# Package Dimensions

## TO-220



Dimensions in Millimeters

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E <sup>2</sup> CMOS™	PowerTrench®	VCX™
FACT™	QFET™	
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