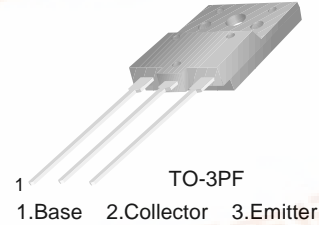


FAIRCHILD
SEMICONDUCTOR®

BU508AF

TV Horizontal Output Applications



NPN Triple Diffused Planar Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CES}	Collector-Emitter Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	5	A
I_{CP}	*Collector Current (Pulse)	15	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.	Typ.	Max.	Units
$V_{CEO(sus)}$	* Collector-Emitter Sustaining Voltage	$I_C = 100\text{mA}, I_B = 0$	700			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 10\text{mA}, I_C = 0$	5			V
I_{CES}	Collector Cut-off Current	$V_{CE} = 1500\text{V}, V_{BE} = 0$			1	mA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$			10	mA
h_{FE}	* DC Current Gain	$V_{CE} = 5\text{V}, I_C = 4.5\text{A}$	2.25			
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C = 4.5\text{A}, I_B = 2\text{A}$			1	V
$V_{BE(sat)}$	* Base-Emitter Saturation Voltage	$I_C = 4.5\text{A}, I_B = 2\text{A}$			1.5	V

* Pulse Test: PW = 300 μs , duty cycle = 1.5% Pulsed



Typical Characteristics

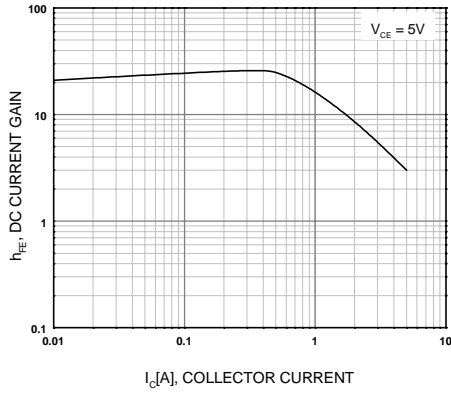


Figure 1. Static Characteristic

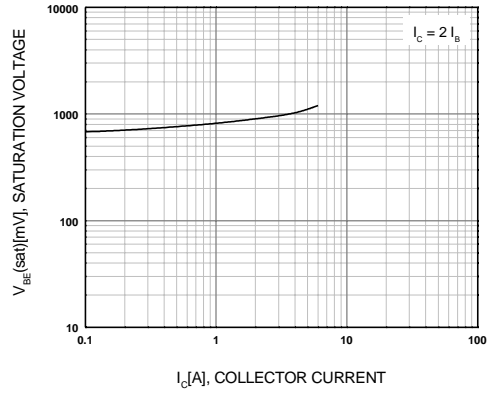


Figure 2. Base-Emitter Saturation Voltage

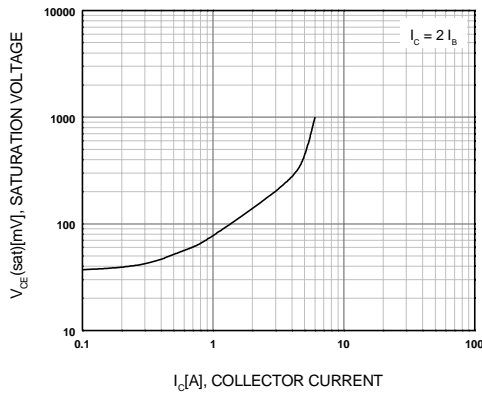


Figure 3. Collector-Emitter Saturation Voltage

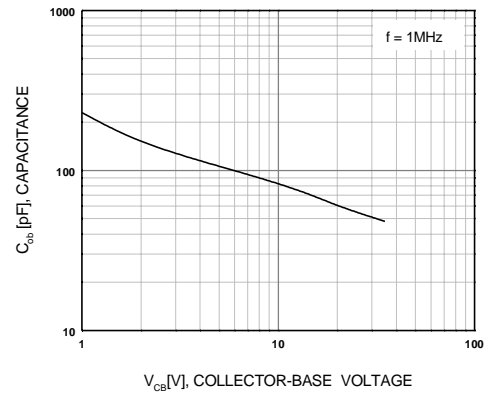


Figure 4. Collector Output Capacitance

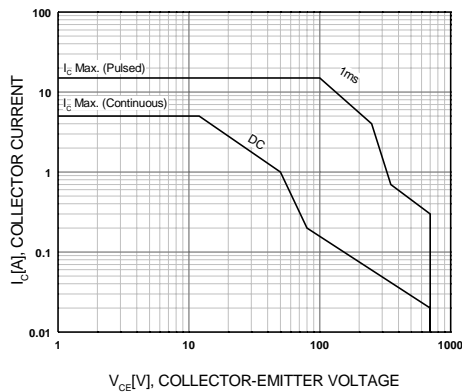


Figure 5. Safe Operating Area

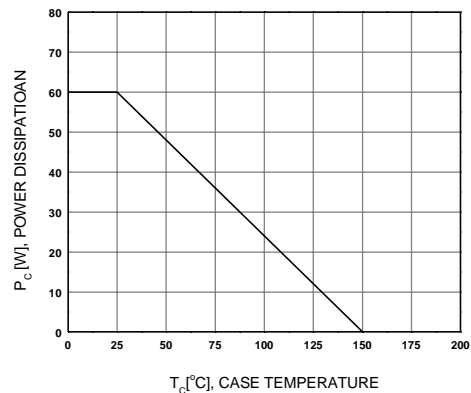
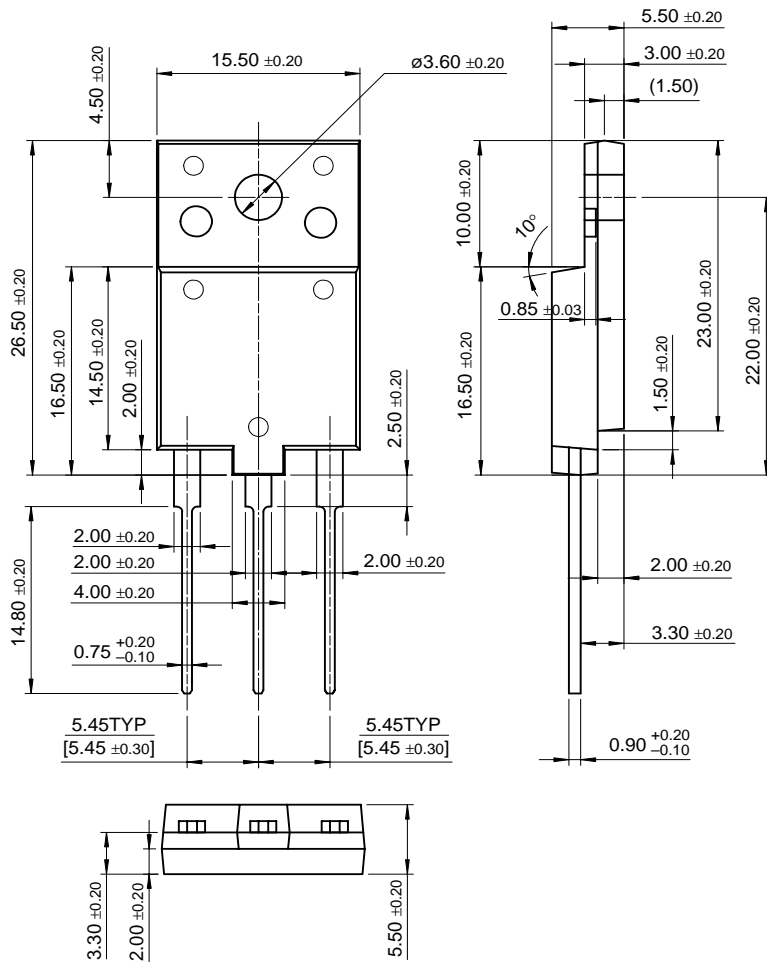


Figure 6. Power Derating

Package Dimensions

BU508AF

TO-3PF



Dimensions in Millimeters

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