

HORIZONTAL DEFLECTION TRANSISTOR

...specifically designed for use in large screen color deflection circuits.

FEATURES:

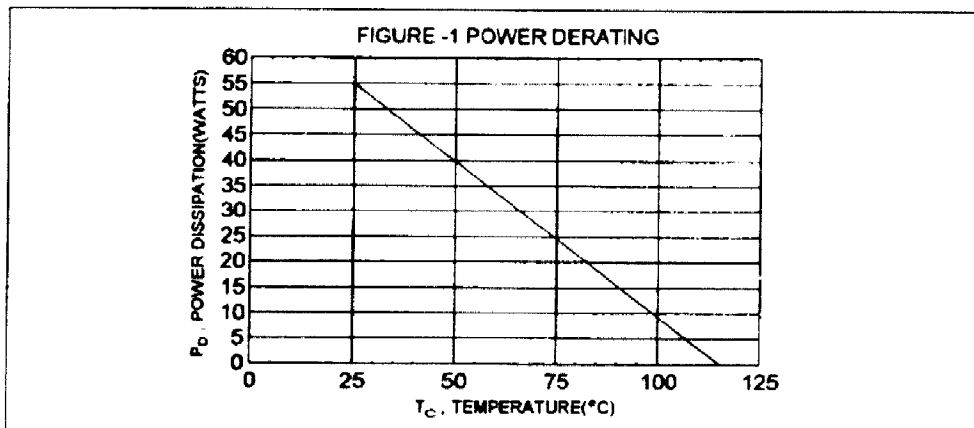
- * Collector-Emitter Sustaining Voltage -
 $V_{CEX} = 1300 \text{ V (Min.) - BU207}$
 $= 1500 \text{ V (Min.) - BU208}$
- * Glassivated Base-Collector Junction

MAXIMUM RATINGS

Characteristic	Symbol	BU207	BU208 BU208A	Unit
Collector-Emitter Voltage	V_{CEO}	600	700	V
Collector-Emitter Voltage	V_{CEX}	1300	1500	V
Emitter-Base Voltage	V_{EBO}	5.0		V
Collector Current - Continuous - Peak	I_C	5.0 7.5		A
Base Current - Continuous	I_B	2.5		A
Total Power Dissipation @ $T_C=25^\circ\text{C}$ Derate above 25°C	P_D	55 0.611		W W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	- 65 to +115		$^\circ\text{C}$

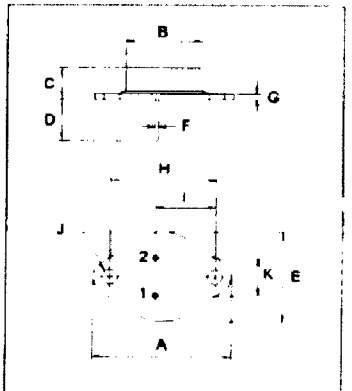
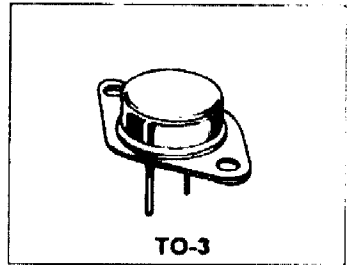
THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	$R_{\theta JC}$	1.64	$^\circ\text{C/W}$



NPN
BU207
BU208
BU208A

5.0 AMPERE
POWER
TRANSISTORS
1300-1500 VOLTS
55 WATTS



PIN 1, BASE
2, EMITTER
COLLECTOR (CASE)

DIM	MILLIMETERS	
	MIN	MAX
A	38.75	39.96
B	19.28	22.23
C	7.96	9.28
D	11.18	12.19
E	25.20	26.67
F	0.92	1.09
G	1.38	1.62
H	29.90	30.40
I	16.84	17.30
J	3.88	4.36
K	10.67	11.18

BU207, BU208, BU208A NPN
ELECTRICAL CHARACTERISTICS ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector - Emitter Sustaining Voltage (1) ($I_c = 100 \text{ mA}$, $I_B = 0$)	BU207 BU208, BU208A	$V_{CE(sus)}$	600 700	V
Collector Cutoff Current ($V_{CE} = 1300 \text{ V}$, $V_{BE} = 0$) ($V_{CE} = 1500 \text{ V}$, $V_{BE} = 0$)	BU207 BU208, BU208A	I_{CES}	1.0 1.0	mA
Emitter Cutoff Current ($V_{EB} = 5.0 \text{ V}$, $I_c = 0$)		I_{EBO}	10	mA

ON CHARACTERISTICS (1)

DC Current Gain ($I_c = 4.5 \text{ A}$, $V_{CE} = 5.0 \text{ V}$)		hFE	2.25	
Collector - Emitter Saturation Voltage ($I_c = 4.5 \text{ A}$, $I_B = 2.0 \text{ A}$)	BU207, BU208 BU208A	$V_{CE(sat)}$	5.0 1.0	V
Base - Emitter Saturation Voltage ($I_c = 4.5 \text{ A}$, $I_B = 2.0 \text{ A}$)		$V_{BE(sat)}$	1.5	V

DYNAMIC CHARACTERISTICS

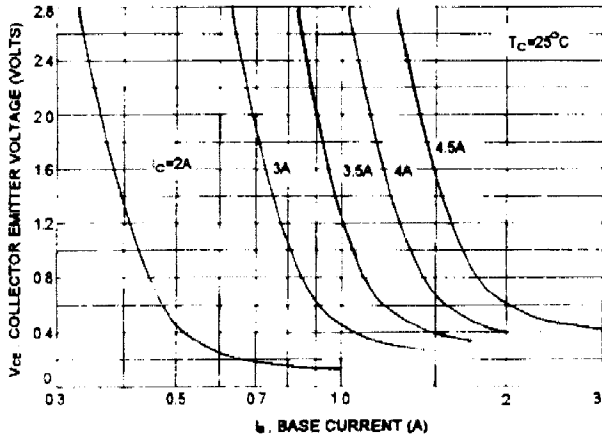
Current Gain - Bandwidth Product ($I_c = 0.1 \text{ A}$, $V_{CE} = 5.0 \text{ V}$, $f = 1.0 \text{ MHz}$)		f_T	4.0(typ)	MHz
Output Capacitance ($V_{CE} = 10 \text{ V}$, $I_E = 0$, $f = 1.0 \text{ MHz}$)		C_{ob}	125(typ)	pF

SWITCHING CHARACTERISTICS

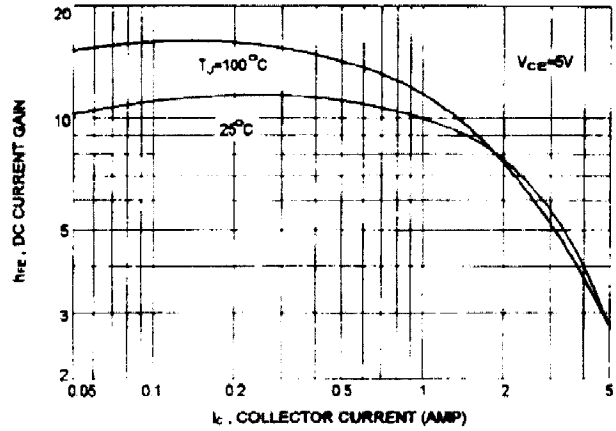
Fall Time ($I_c = 4.5 \text{ A}$, $I_{B1} = 1.8 \text{ A}$, $L_B = 10 \text{ uH}$)		t_f	1.0(typ)	us
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(1) Pulse Test: Pulse width $\leq 300 \text{ us}$, Duty Cycle $\leq 2.0\%$

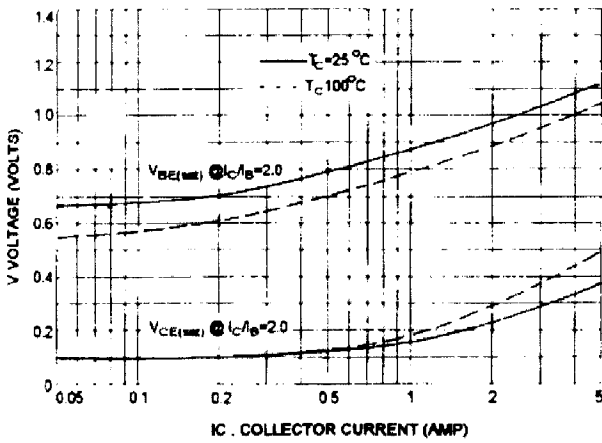
COLLECTOR SATURATION REGION



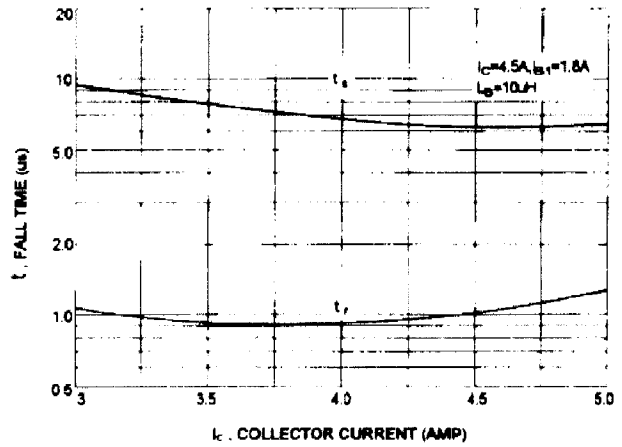
DC CURRENT GAIN



"ON" VOLTAGES



SWITCHING BEHAVIOR VERSUS I_{CM}



FORWARD BIAS SAFE OPERATING AREA

