MOSPEC

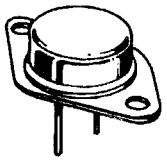
HORIZONTAL DEFLECTION TRANSISTOR

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

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

NPN
BU207
BU208
BU208A

5.0 AMPERE
POWER
TRANSISTORS
1300-1500 VOLTS
55 WATTS



TO-3

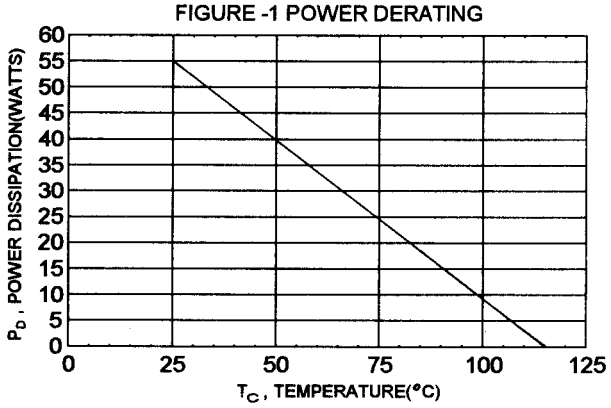
MAXIMUM RATINGS

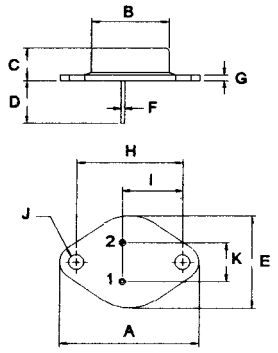
Characteristic	Symbol	BU207	BU208 BU208A	Unit
Collector-Emitter Voltage	V_{CEO}	600	700	V
Collector-Emitter Voltage	V_{CEX}	1300	1500	V
Emitter-Base Voltage	V_{EBO}	5.0		V
Collector Current - Continuous - Peak	I_C	5.0 7.5		A
Base Current - Continuous	I_B	2.5		A
Total Power Dissipation @T_C=25°C Derate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

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	Rθjc	1.64	°C/W

FIGURE -1 POWER DERATING





PIN 1.BASE
2.EMITTER
COLLECTOR(CASE)

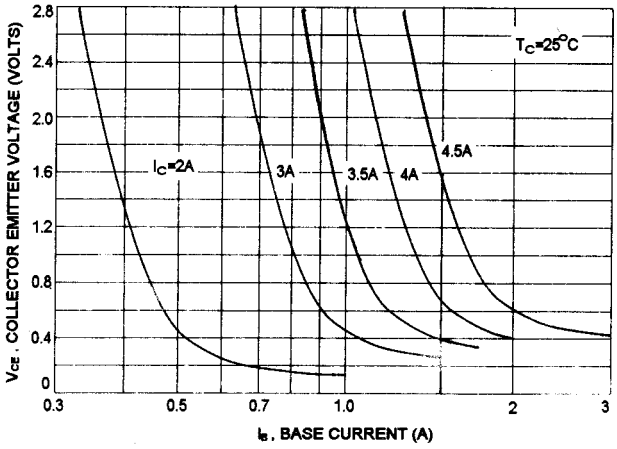
DIM	MILLIMETERS	
	MIN	MAX
A	38.75	39.96
B	19.28	22.23
C	7.96	9.28
D	11.18	12.19
E	25.20	26.67
F	0.92	1.09
G	1.38	1.62
H	29.90	30.40
I	16.64	17.30
J	3.88	4.36
K	10.67	11.18

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

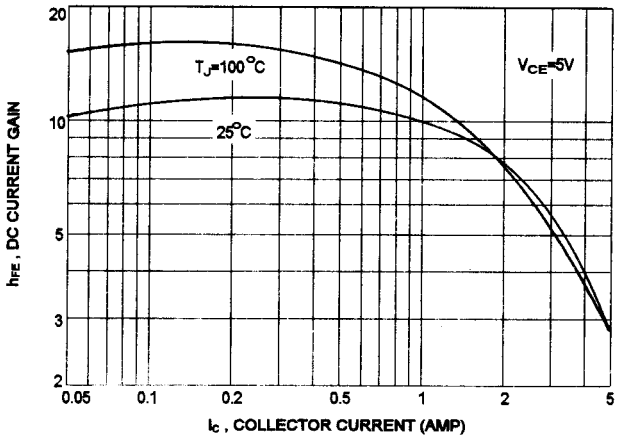
Characteristic		Symbol	Min	Max	Unit
OFF CHARACTERISTICS					
Collector - Emitter Sustaining Voltage (1) (I_C = 100 mA, I_B = 0)	BU207 BU208,BU208A	$V_{CEO(SUS)}$	 600 700		V
Collector Cutoff Current (V_{CE} = 1300 V, V_{BE}= 0) (V_{CE} = 1500 V, V_{BE} = 0)	 BU207 BU208,BU208A	I_{CES}		 1.0 1.0	mA
Emitter Cutoff Current (V_{EB}= 5.0 V , I_C = 0)		I_{EBO}		 10	mA
ON CHARACTERISTICS (1)					
DC Current Gain (I_C =4.5 A , V_{CE} = 5.0 V)		hFE	 2.25		
Collector - Emitter Saturation Voltage (I_C =4.5 A, I_B = 2.0 A)	BU207,BU208 BU208A	$V_{CE(sat)}$		5.0 1.0	V
Base - Emitter Saturation Voltage (I_C =4.5 A, I_B = 2.0 A)		$V_{BE(sat)}$		 1.5	V
DYNAMIC CHARACTERISTICS					
Current Gain - Bandwidth Product (I_C = 0.1 A , V_{CE} = 5.0 V , f = 1.0 MHz)		f_T	 4.0(typ)		MHz
Output Capacitance (V_{CE}=10 V, I_E=0, f=1.0 MHz)		C_{ob}	 125(typ)		pF
SWITCHING CHARACTERISTICS					
Fall Time (I_C=4.5 A, I_{B1}=1.8 A, L_B=10 uH)		t_f	 1.0(typ)		us

(1) Pulse Test: Pulse width $\leqq$ 300 us , Duty Cycle $\leqq$ 2.0%

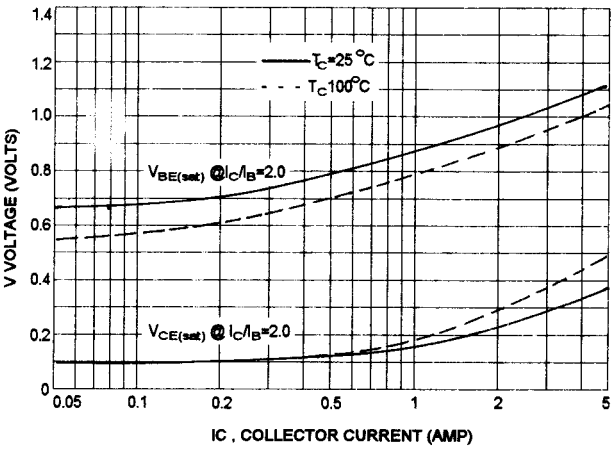
COLLECTOR SATURATION REGION



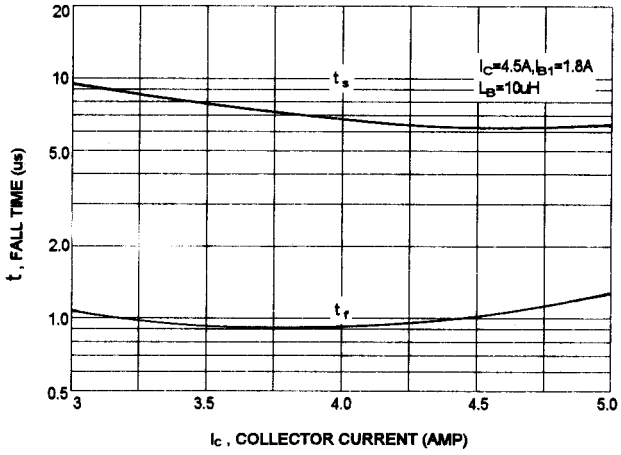
DC CURRENT GAIN



"ON" VOLTAGES



SWITCHING BEHAVIOR VERSUS I_{CM}



FORWARD BIAS SAFE OPERATING AREA