



## HORIZONTAL DEFLECTION TRANSISTOR NPN BU208A, 5A 700V

### Technical Data

...designed for use in televisions.

- ☞ Collector-Emitter Voltage- $V_{CES}=1500V_{dc}$
- ☞ Low Thermal Resistance  $1\text{ }^{\circ}C/W$  increased Reliability
- ☞ TO-3 Package
- ☞ Fast Switching ---400ns Typical Fall Time

### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector- Emitter Voltage	$V_{CEO(SUS)}$	700	Vdc
Collector- Emitter Voltage	$V_{CES}$	1500	Vdc
Emitter Base Voltage	$V_{EB}$	5	Vdc
Collector Current – Continuous	$I_C$	5	Adc
_Peak(1)	$I_{CM}$	7.5	
Base Current – continuous	$I_B$	4	Adc
-- Peak(1)	IBM	3.5	
<b><u>Total Power Dissipation @</u></b> <b><u>TC = 95° C</u></b> Derate above 95°C	PD	12.5 0.625	Watts 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	$R_{thjc}$	1.6	°C/W



**ELECTRICAL CHARACTERISTICS : [ Tc = 25 °C unless otherwise noted ]**

Characteristic	Symbol	Min	Typ	Max	Unit
<b>* OFF CHARACTERISTICS :</b>					
Collector–Emitter Sustaining Voltage (1) [ Ic =100 mAdc, IB = 0 ]	V <sub>CEO(sus)</sub>	700			Vdc
Collector Cutoff Current [ V <sub>CE</sub> = 1500 Vdc, V <sub>BE</sub> = 0 ]	I <sub>CES</sub>			1	mAdc
Emitter Base Voltage [ I <sub>E</sub> = 10mA, Ic = 0 ]	BV <sub>EBO</sub>	5			Vdc
<b>* ON CHARACTERISTICS (1):</b>					
DC Current Gain [ Ic = 4.5 Adc , V <sub>CE</sub> = 5.0 Vdc ]	h <sub>FE</sub>	2.25			
Collector-Emitter Saturation Voltage [ Ic = 4.5 Adc , IB = 2Adc )	V <sub>CE(sat)</sub>			1	Vdc
Base-Emitter Saturation Voltage [ Ic = 4.5 Adc , IB = 2Adc ]	V <sub>BE(sat)</sub>			1.5	Vdc
<b>DYNAMIC CHARACTERISTICS:</b>					
Current Gain – Bandwidth Product [ Ic = 0.1Adc, V <sub>CE</sub> =5 Vdc, ftest=1.0 MHz ]	f <sub>T</sub>	---	4	--	MHz
Output Capacitance (VCB=10Vdc,IE=0,f=1MHz)	C <sub>OB</sub>	--	125	--	pF
<b>SWITCHING CHARACTERISTICS</b>					
Fall Time (Ic=2Adc,IB1=1Adc,LB=25⚡H)	tf	---	0.4	---	⚡s
Storage Time (Ic=4.5Adc,IB1=1.8Adc,LB=10⚡H)	ts		8		⚡s

(1) Pulse Test : Pulse Width =300⚡s , Duty Cycle < 2.0%