

BU208A

Power Transistor



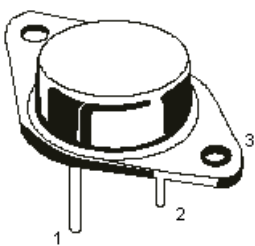
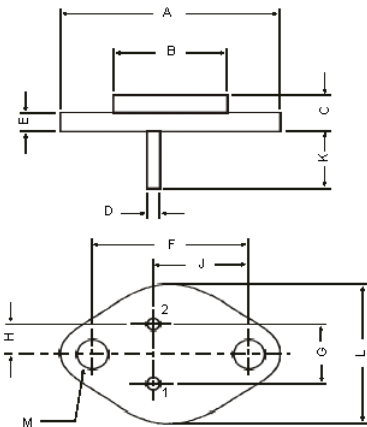
CRT Deflection Transistors



Feature:

- NPN bipolar, silicon planar power transistors for use in horizontal deflection circuits of CRTs. Suitable for medium, high, and very high resolution monochrome and colour applications.

TO-3 Metal Can Package



Pin Configuration

1. Base
2. Emitter
3. Collector

Dimensions	Minimum	Maximum
A	-	39.37
B	-	22.22
C	6.35	8.50
D	0.96	1.09
E	-	1.77
F	29.90	30.40
G	10.69	11.18
H	5.20	5.72
J	16.64	17.15
K	11.15	12.25
L	-	26.67
M	3.84	4.19

Dimensions : Millimetres

Absolute Maximum Ratings

Parameter	Symbol	Value	Units
Collector Emitter Voltage	$V_{CEO(sus)}$	700	V
Collector Emitter Voltage	V_{CES}	1500	
Emitter Base Voltage	V_{EBO}	5.0	
Collector Current Continuous Peak	I_C I_{CM}	5.0 7.5	A
Base Current Continuous Peak (Negative)	I_B I_{BM}	4.0 3.5	
Power Dissipation at $T_C = 95^\circ\text{C}$ Derate Above 95°C	P_D	12.5 0.625	W W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +115	$^\circ\text{C}$
Thermal Resistance			
Junction to Case	$R_{th(j-c)}$	1.6	$^\circ\text{C}/\text{W}$
Maximum Lead Temperature for Soldering Purpose 1/8" from Case for 5 Seconds	T_L	275	$^\circ\text{C}$

Electrical Characteristics ($T_C = 25^\circ\text{C}$ unless specified otherwise)

Parameter	Symbol	Test Condition	Minimum	Typical	Maximum	Units
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}^*$	$I_C = 100\text{mA}, L = 25\text{mH}$	700	-	-	V
Collector Cut off Current	I_{CES}	$V_{CE} = \text{Rated } V_{CES}, V_{BE} = 0$	-	-	1.0	mA
Emitter Base Voltage	V_{EBO}	$I_E = 10\text{mA}, I_C = 0$ $I_E = 100\text{mA}, I_C = 0$	5.0	7.0	-	V
DC Current Gain	h_{FE}^*	$I_C = 4.5\text{A}, V_{CE} = 5\text{V}$	2.25	-	-	-
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C = 4.5\text{A}, I_B = 2\text{A}$	-	-	1.0	V
Base Emitter Saturation Voltage	$V_{BE(sat)}^*$	$I_C = 4.5\text{A}, I_B = 2\text{A}$	-	-	1.5	
Dynamic Characteristics						
Current Gain Bandwidth Product	f_T	$I_C = 0.1\text{A}, V_{CE} = 5\text{V}, f = 1\text{MHz}$	-	4.0	-	MHz
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	-	125	-	pF
Switching Characteristics						
Storage Time	t_s	$I_C = 4.5\text{A}, I_{B1} = 1.8\text{A}, L_B = 10\mu\text{H}$	-	8.0	-	μs
Fall Time	t_f	$I_C = 4.5\text{A}, I_{B1} = 1.8\text{A}, L_B = 10\mu\text{H}$	-	0.4	-	

*Pulse Test: PW = 300 μs ; Duty Cycle $\leq 2\%$

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Specifications

I_C cont. (A)	$V_{CEO(sus)}$ (V)	V_{CES} (V)	$V_{CE(sat)}$ (V) at $I_C = 4.5A$	P_D at 95°C (W)	Package	Part Number
5	700	1500	1	12.5	TO-3	BU208A

Notes:

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