

BU407

Power Transistor



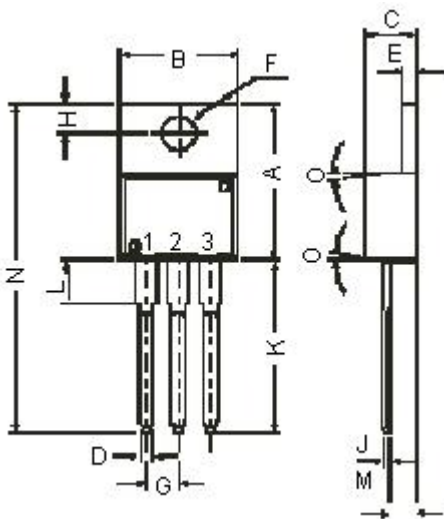
CRT Deflection Transistors



Features:

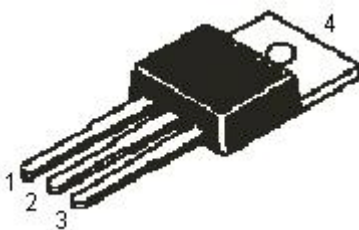
- NPN bipolar power transistors for use in high voltage, high speed transistors for horizontal deflection circuits of TVs and CRTs. Suitable for medium, high, and very high resolution monochrome and colour applications.

TO-220 Plastic Package



Dimensions	Minimum	Maximum
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	-	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	-	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	-	31.24
O	7°	

Dimensions : Millimetres



Pin Configuration:

1. Base
2. Collector
3. Emitter
4. Collector



Absolute Maximum Ratings

Parameter	Symbol		Rating	Unit
Collector Base Voltage (Open Emitter)	V_{CBO}	Maximum	330	V
Collector Emitter Voltage (Open Base)	V_{CEO}		150	
Collector Current	I_C		7.0	A
Total Power Dissipation upto $T_C = 25^\circ\text{C}$	P_{tot}		60	W
Junction Temperature	T_j		150	$^\circ\text{C}$
Collector Emitter Saturation Voltage $I_C = 5\text{A}; I_B = 0.5\text{A}$	$V_{CE(sat)}$		1.0	V

Ratings (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol		Rating	Unit
Collector Base Voltage (Open Emitter)	V_{CBO}	Maximum	330	V
Collector Emitter Voltage (Open Base)	V_{CEO}		150	
Collector Emitter Voltage ($V_{BE} = -1.5\text{V}$)	V_{CEV}		330	
Emitter Base Voltage (Open Collector)	V_{EBO}		6.0	
Collector Current	I_C		7.0	A
Collector Current Peak (Repetitive)	I_{CM}		10	
Collector Current Peak ($t = 10\text{ms}$)			15	
Base Current	I_B		4.0	
Total Power Dissipation upto $T_C = 25^\circ\text{C}$ Derate above 25°C	P_{tot}		60 0.48	W $\text{W}/^\circ\text{C}$
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +150		
Thermal Resistance				
From Junction to Case	$R_{th(j-c)}$	=	2.08	$^\circ\text{C}/\text{W}$
From Junction to Ambient	$R_{th(j-a)}$	=	70	

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

Parameter	Symbol	-	Rating	Unit
Collector Cut off Current $V_{BE} = 0; V_{CE} = 330\text{V}$ $V_{BE} = 0; V_{CE} = 200\text{V}$ $V_{BE} = 0; V_{CE} = 200\text{V}; T_C = 150^{\circ}\text{C}$	I_{CES}	Maximum	5 100 1.0	mA μA mA
Emitter Cut off Current $I_C = 0; V_{EB} = 6\text{V}$	I_{EBO}		1.0	mA
Breakdown Voltages $I_C = 100\text{mA}; I_B = 0$ $I_C = 1\text{mA}; I_E = 0$ $I_E = 1\text{mA}; I_C = 0$	$V_{CEO(sus)}^*$ V_{CBO} V_{EBO}	Minimum	150 330 6.0	V
Saturation Voltage $I_C = 5\text{A}; I_B = 0.5\text{A}$	$V_{CE(sat)}^*$ $V_{BE(sat)}^*$	Maximum	1.0 1.2	
Transition Frequency $I_C = 0.5\text{A}; V_{CE} = 10\text{V}$	f_T	Minimum	10	MHz
Switching Time $I_C = 5\text{A}; -I_{Bend} = 0.5\text{A}$ Turn off Time	t_{off}	Maximum	0.75	μs
Second Breakdown Collector Current with Base Forward Biased $V_{CE} = 40\text{V}; t = 10\text{ms}$	$I_{S/b}$	Typical	4	A

* Pulsed : Pulse Duration = 300 μs ; Duty Cycle = 1.5%.

Specifications

I_C cont. (A)	$V_{CEO(sus)}$ (A)	V_{CBO} (V)	$V_{CE(sat)}$ (V) at $I_C = 5\text{A}$	P_{tot} at 25°C (W)	Package	Part Number
7	150	330	1	60	TO-220	BU407

Notes:

International Sales Offices:

**AUSTRALIA - Farnell**

Tel No: ++61 1300 361 005
Fax No: ++61 1300 361 225

**FINLAND - Farnell**

Tel No: ++ 358 9 560 7780
Fax No: ++ 358 9 345 5411

**ITALY - Farnell**

Tel No: ++ 39 02 93 995 200
Fax No: ++ 39 02 93 995 300

**SPAIN - Farnell**

Tel No: 901 20 20 80
Fax No: 901 20 20 90

**AUSTRIA - Farnell**

Tel No: ++ 43 662 2180 680
Fax No: ++ 43 662 2180 670

**FRANCE - Farnell**

Tel No: ++ 33 474 68 99 99
Fax No: ++ 33 474 68 99 90

**MALAYSIA - Farnell-Newark**

Tel No: ++ 60 3 7873 8000
Fax No: ++ 60 3 7873 7000

**SWEDEN - Farnell**

Tel No: ++ 46 8 730 50 00
Fax No: ++ 46 8 83 52 62

**BELGIUM - Farnell**

Tel No: ++ 32 3 475 2810
Fax No: ++ 32 3 227 3648

**GERMANY - Farnell**

Tel No: ++ 49 89 61 39 39 39
Fax No: ++ 49 89 613 59 01

**NETHERLANDS - Farnell**

Tel No: ++ 31 30 241 7373
Fax No: ++ 31 30 241 7333

**SWITZERLAND - Farnell**

Tel No: ++ 44 204 64 64
Fax No: ++ 44 204 64 54

**BRAZIL - Farnell-Newark**

Tel No: ++ 55 11 4066 9400
Fax No: ++ 55 11 4066 9410

**HONG KONG - Farnell-Newark**

Tel No: ++ 852 2268 9888
Fax No: ++ 852 2268 9899

**NEW ZEALAND - Farnell**

Tel No: 0800 90 80 80
Fax No: 0800 90 80 81

**UK - Farnell**

Tel No: ++ 44 8701 200 200
Fax No: ++ 44 8701 200 201

**CHINA - Farnell-Newark**

Tel No: ++86 10 6238 5152
Fax No: ++86 10 6238 5022

**HUNGARY - Farnell**

Tel No: ++ 44 870 1200 208
Fax No: ++ 44 870 1200 209

**NORWAY - Farnell**

Tel No: 800 146 70
Fax No: 800 146 76

**UK - CPC**

++ 44 8701 202 530
++ 44 8701 202 531

**CZECH REPUBLIC - Farnell**

Tel No: ++ 44 870 1200 208
Fax No: ++ 44 870 1200 209

**INDIA - Farnell**

Tel No: ++ 44 870 1200 208
Fax No: ++ 44 870 1200 209

**PORTUGAL - Farnell**

Tel No: ++ 34 93 475 8804
Fax No: ++ 34 93 474 5288

**USA - Newark**

Tel No: 800 463 9275

**DENMARK - Farnell**

Tel No: ++ 45 44 53 66 44
Fax No: ++ 45 44 53 66 06

**IRELAND - Farnell**

Tel No: ++ 353 1 830 9277
Fax No: ++ 353 1 830 9016

**RUSSIA - Farnell**

Tel No: ++ 44 870 1200 208
Fax No: ++ 44 870 1200 209

**EXPORT - Farnell**

Tel No: ++ 44 8701 200 208
Fax No: ++ 44 8701 200 209

For enquiries from all other markets

**ESTONIA - Farnell**

Tel No: ++ 358 9 560 7780
Fax No: ++ 358 9 345 5411

**ISRAEL - Farnell**

Tel No: ++ 180 937 0015
Fax No: ++ 180 937 0014

**SINGAPORE - Farnell-Newark**

Tel No: ++ 65 6788 0200
Fax No: ++ 65 6788 0300

<http://www.farnell.com>

<http://www.newark.com>

<http://www.cpc.co.uk>

Disclaimer This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC Multicomp is the registered trademark of the Group. © Premier Farnell plc 2008.