

BU208
BU208A

HIGH VOLTAGE
NPN SILICON
POWER TRANSISTOR



TO-3 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BU208, BU208A types are high voltage NPN silicon power transistors, manufactured by the multiepitaxial mesa process, designed for fast switching horizontal deflection circuits in color televisions.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$)

Collector-Emitter Voltage	V_{CES}	1500	V
Collector-Emitter Voltage	V_{CEO}	700	V
Emitter-Base Voltage	V_{EBO}	10	V
Continuous Collector Current	I_C	8.0	A
Peak Collector Current	I_{CM}	15	A
Power Dissipation	P_D	150	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +175	$^\circ\text{C}$
Thermal Resistance	θ_{JC}	1.0	$^\circ\text{C/W}$

SYMBOL

V_{CES}	1500
V_{CEO}	700
V_{EBO}	10
I_C	8.0
I_{CM}	15
P_D	150
T_J, T_{stg}	-65 to +175
θ_{JC}	1.0

UNITS

V
V
V
A
A
W
$^\circ\text{C}$
$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

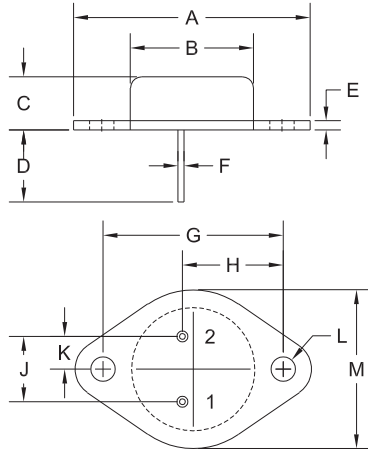
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CES}	$V_{CE}=1500\text{V}$			2.0	mA
I_{EBO}	$V_{EB}=5.0\text{V}$			100	μA
BV_{CEO}	$I_C=100\text{mA}$	700			V
BV_{EBO}	$I_E=10\text{mA}$	10			V
$V_{CE(SAT)}$	$I_C=4.5\text{A}, I_B=2.0\text{A}$ (BU208)			5.0	V
$V_{CE(SAT)}$	$I_C=4.5\text{A}, I_B=2.0\text{A}$ (BU208A)			1.0	V
$V_{BE(SAT)}$	$I_C=4.5\text{A}, I_B=2.0\text{A}$			1.3	V
f_T	$V_{CE}=5.0\text{V}, I_C=100\text{mA}, f=5.0\text{MHz}$		7.0		MHz
t_s	$V_{CC}=140\text{V}, I_C=4.5\text{A}, h_{FE}=2.5$		7.0		μs
t_f	$L_C=0.9\text{mH}, L_B=3.0\mu\text{H}$		0.55		μs

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TO-3 CASE - MECHANICAL OUTLINE



R2

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

LEAD CODE:

- 1) Base
- 2) Emitter
- Case) Collector

MARKING:

FULL PART NUMBER

R0 (5-October 2012)