

**BU208  
BU208A**

**HIGH VOLTAGE  
NPN SILICON  
POWER TRANSISTOR**



**TO-3 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BU208, BU208A types are high voltage NPN silicon power transistors, manufactured by the multi-epitaxial 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
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Peak Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
$V_{CES}$	1500	V
$V_{CEO}$	700	V
$V_{EBO}$	10	V
$I_C$	8.0	A
$I_{CM}$	15	A
$P_D$	150	W
$T_J, T_{stg}$	-65 to +175	$^\circ\text{C}$
$\theta_{JC}$	1.0	$^\circ\text{C/W}$

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

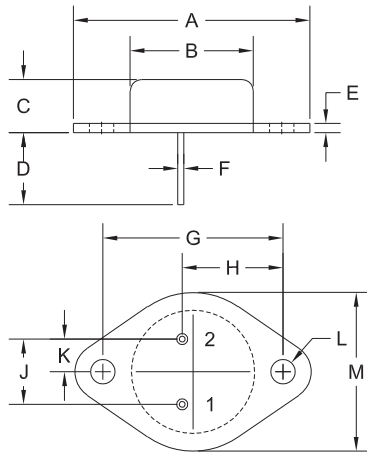
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CES}$	$V_{CE}=1500\text{V}$			2.0	mA
$I_{EBO}$	$V_{EB}=5.0\text{V}$			100	$\mu\text{A}$
$BV_{CEO}$	$I_C=100\text{mA}$	700			V
$BV_{EBO}$	$I_E=10\text{mA}$	10			V
$V_{CE(SAT)}$	$I_C=4.5\text{A}, I_B=2.0\text{A}$ (BU208)			5.0	V
$V_{CE(SAT)}$	$I_C=4.5\text{A},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

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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)