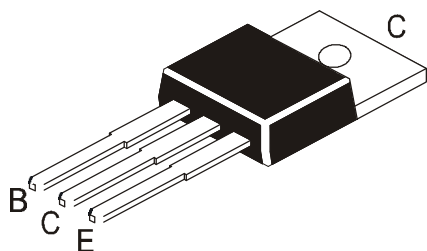


NPN SILICON PLANAR POWER TRANSISTOR

BU508AT

TO-220

Plastic Package



High Voltage, High-Speed Switching Transistor
Intended for use in Horizontal Deflection Circuits of Colour Televisions

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Emitter Voltage	V_{CES}	1500	V
Collector Emitter Voltage	V_{CEO}	700	V
Collector Current (DC)	I_C	8	A
Collector Current (Peak)	I_{CM}	15	A
Base Current (DC)	I_B	4	A
Base Current (Peak)	I_{BM}	6	A
Reverse Base Current (DC or average over any 20 ms period)	$-I_{B(AV)}$	100	mA
Reverse Base Current (Peak Value)	$*-I_{BM}$	5	A
Power Dissipation upto $T_c=25^\circ\text{C}$	P_{tot}	60	W
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +150	$^\circ\text{C}$

*Turn off Current

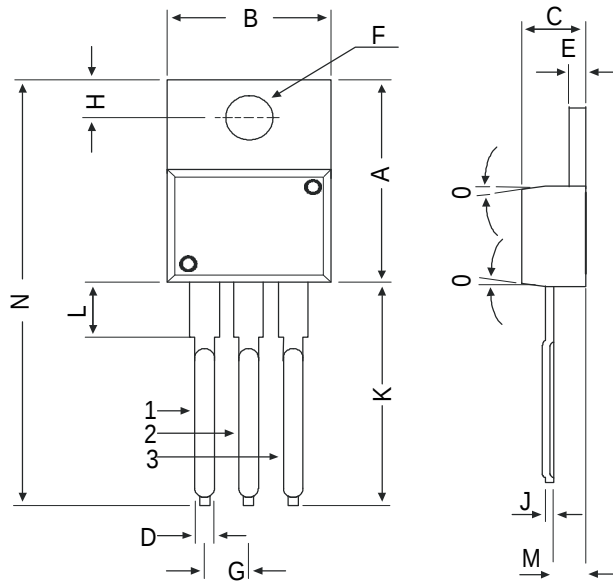
ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut off Current	$**I_{CES}$	$V_{CE}=V_{CES} \text{ max}, V_{BE}=0$			1.0	mA
		$T_j=125^\circ\text{C}$				
		$V_{CE}=V_{CES} \text{ max}, V_{BE}=0$			2.0	mA
Emitter Cut off Current	I_{EBO}	$V_{EB}=6V, I_C=0$			10	mA
Collector Emitter Sustaining Voltage	$*V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0, L=25\text{mH}$	700			V
DC Current Gain	$*h_{FE}$	$I_C=4.5A, V_{CE}=5V$	2.25			
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=4.5A, I_B=2A$			1.0	V
Base Emitter Saturation Voltage	$*V_{BE(sat)}$	$I_C=4.5A, I_B=2A$			1.3	V
Transition Frequency	f_T	$I_C=0.1A, V_{CE}=5V, f=5\text{MHz}$		7		MHz
Collector Capacitance	C_C	$I_E=ie=0, V_{CB}=10V, f=1\text{MHz}$		125		pF

**Measured with half-sinewave Voltage (curve tracer)

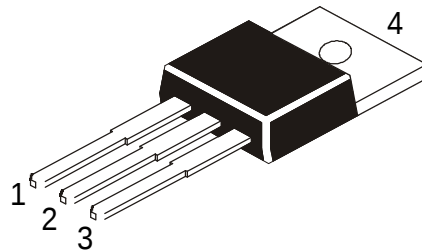
*Pulse Test: Pulse Width=5ms, Duty Cycle $\leq$ 10%

TO-220 Plastic Package



DIM	MIN	MAX
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 DEG	

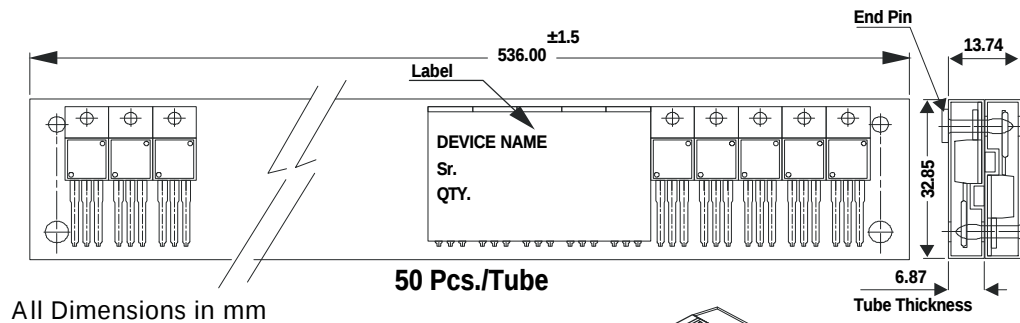
All dimensions in mm.



Pin Configuration

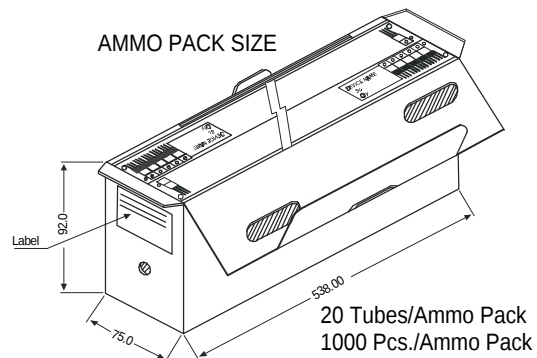
1. Base
2. Collector
3. Emitter
4. Collector

TO-220 Tube Packing



All Dimensions in mm

AMMO PACK SIZE



Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-220 /FP	200 pcs/polybag	396 gm/200 pcs	3" x 7.5" x 7.5"	1.0K	17" x 15" x 13.5"	16.0K	36 kgs
	50 pcs/tube	120 gm/50 pcs	3.5" x 3.7" x 21.5"	1.0K	19" x 19" x 19"	10.0K	29 kgs

Disclaimer

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CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290
e-mail sales@cdil.com www.cdil.com www.cdilsemi.com