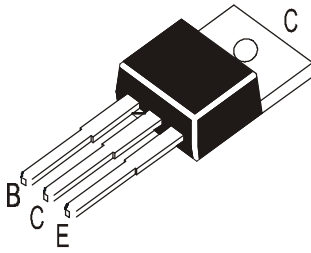


NPN PLASTIC POWER TRANSISTORS

**BU406
BU407**

**TO-220
Plastic Package**



Horizontal Deflection Output Stages of TV and CRT

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	BU406	BU407	UNIT
Collector Emitter Voltage	V _{CEO}	200	150	V
Collector Base Voltage	V _{CB0}	400	330	V
Collector Emitter Voltage	V _{CEV}	400	330	V
Emitter Base Voltage	V _{EBO}	6		V
Collector Current Continuous	I _C	7		A
Collector Current Repetitive Peak	I _{CM}	10		A
Collector Current (10ms) Peak	I _{CM}	15		A
Base Current	I _B	4		A
Power Dissipation upto T _c =25°C	P _D	60		W
Derate above 25°C		480		mW/°C
Power Dissipation upto T _a =25°C	P _D	2		W
Derate above 25°C		16		mW/°C
Operating and Storage Junction Temperature	T _j , T _{stg}	- 65 to +150		°C

THERMAL RESISTANCE

Junction to Case	R _{th(j-c)}	2.08	°C/W
Junction to Ambient in free air	R _{th(j-a)}	62.5	°C/W

ELECTRICAL CHARACTERISTICS (T_c=25°C unless specified otherwise)

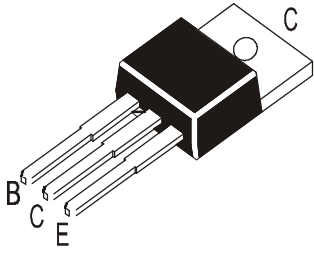
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT	
Collector Emitter (sus) Voltage	*V _{CEO(sus)}	I _C =100mA, I _B =0	BU406	200	V	
			BU407	150	V	
Collector Cut off Current	I _{CES}	V _{CE} =400V, V _{BE} =0	BU406		5.0 mA	
		V _{CE} =330V, V _{BE} =0	BU407		5.0 mA	
		V _{CE} =250V, V _{BE} =0	BU406		0.1 mA	
		V _{CE} =200V, V _{BE} =0	BU407		0.1 mA	
		T _c =150°C				
		V _{CE} =250V, V _{BE} =0	BU406		1.0 mA	
V _{CE} =200V, V _{BE} =0	BU407		1.0 mA			

*Pulse Test : Pulse width ≤300ms, Duty Cycle ≤1%

PLASTIC POWER TRANSISTORS

**BU406
BU407**

**TO-220
Plastic Package**



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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Emitter Cut off Current	I_{EBO}	$V_{EB}=6V, I_C=0$		1.0	mA
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=5A, I_B=0.5A$		1.0	V
Base Emitter Saturation Voltage	$*V_{BE(sat)}$	$I_C=5A, I_B=0.5A$		1.2	V
DC Current Gain	$*h_{FE}$	$I_C=5A, V_{CE}=1V$	10		

DYNAMIC CHARACTERISTIC

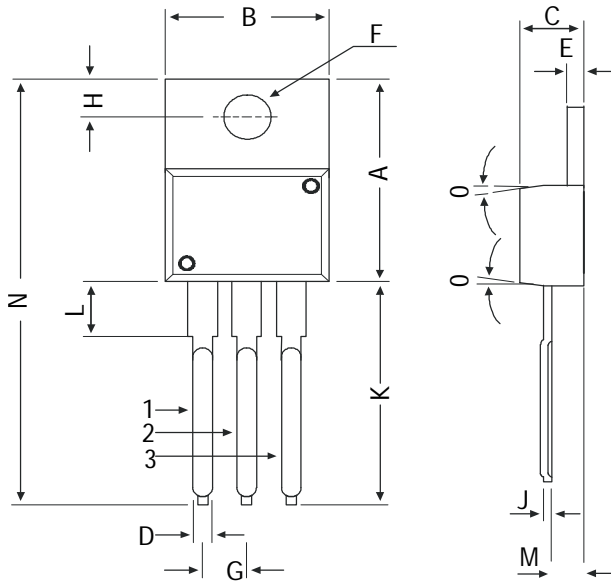
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Transition Frequency	f_T	$I_C=0.5A, V_{CE}=10V, f=20\text{MHz}$	10		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1\text{MHz}$		Typ. 80	pF

SWITCHING CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Inductive Load Crossover Time	t_c	$V_{cc}=40V, I_c=5A, I_{B1}=I_{B2}=0.5A, L=150\mu\text{H}$		0.75	μs

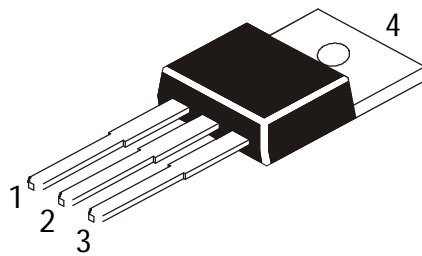
*Pulse Test : Pulse width $\leq 300\text{ms}$, Duty Cycle $\leq 1\%$

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	

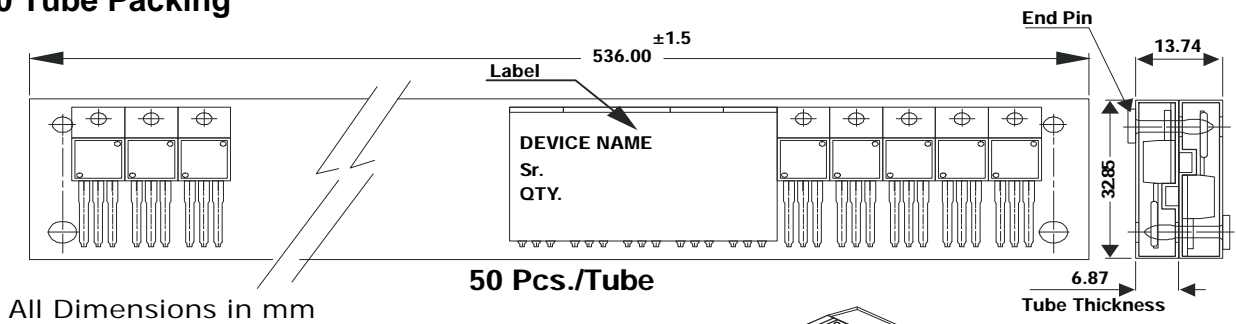
All dimensions in mm.



Pin Configuration

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

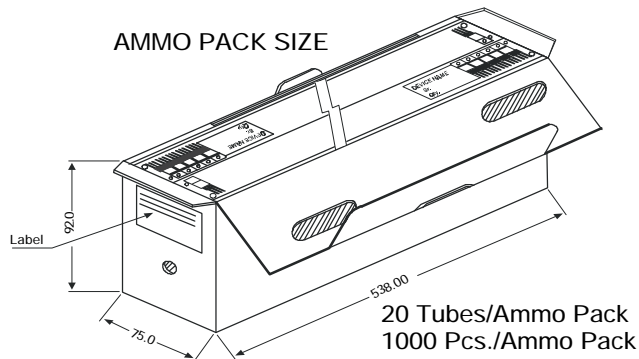
TO-220 Tube Packing



All Dimensions in mm

50 Pcs./Tube

AMMO PACK SIZE



Packing Details

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-220	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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