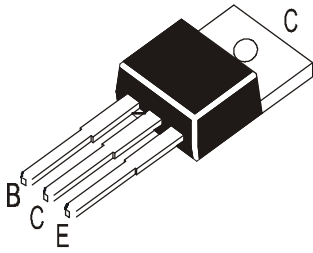


NPN PLASTIC POWER TRANSISTORS

BU406
BU407

TO-220
Plastic Package



Horizontal Deflection Output Stages of TV and CRT

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

DESCRIPTION	SYMBOL	BU406	BU407	UNIT
Collector Emitter Voltage	V_{CEO}	200	150	V
Collector Base Voltage	V_{CBO}	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 $T_c=25^\circ\text{C}$	P_D	60		W
Derate above 25°C		480		mW/°C
Power Dissipation upto $T_a=25^\circ\text{C}$	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 ($T_c=25^\circ\text{C}$ unless specified otherwise)

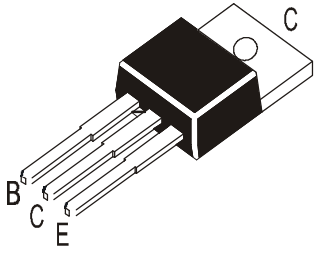
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter (sus) Voltage	$*V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	BU406	200	V
			BU407	150	V
Collector Cut off Current	I_{CES}	$V_{CE}=400\text{V}, V_{BE}=0$	BU406		5.0
		$V_{CE}=330\text{V}, V_{BE}=0$	BU407		5.0
		$V_{CE}=250\text{V}, V_{BE}=0$	BU406		0.1
		$V_{CE}=200\text{V}, V_{BE}=0$	BU407		0.1
		$T_c=150^\circ\text{C}$	BU406		1.0
		$V_{CE}=200\text{V}, V_{BE}=0$	BU407		1.0

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

PLASTIC POWER TRANSISTORS

**BU406
BU407**

**TO-220
Plastic Package**



ELECTRICAL CHARACTERISTICS (T_c=25°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

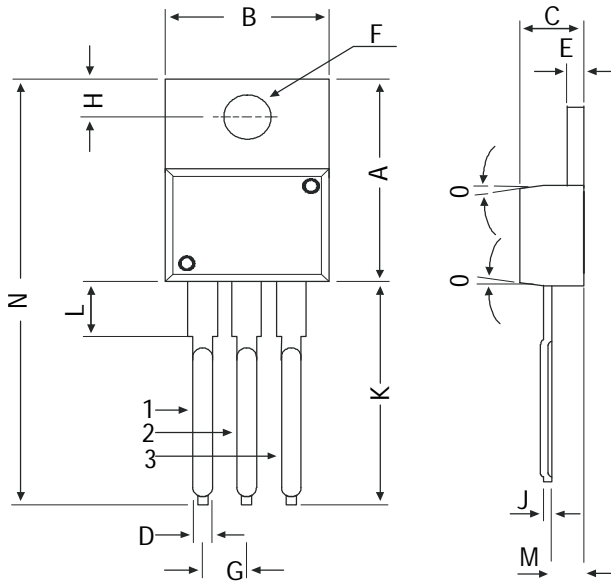
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Transition Frequency	f _T	I _C =0.5A, V _{CE} =10V, f=20MHz	10		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		Typ. 80	pF

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=150μH		0.75	μs

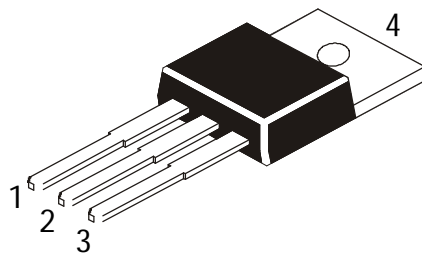
*Pulse Test : Pulse width ≤300ms, Duty Cycle ≤ 1%

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	

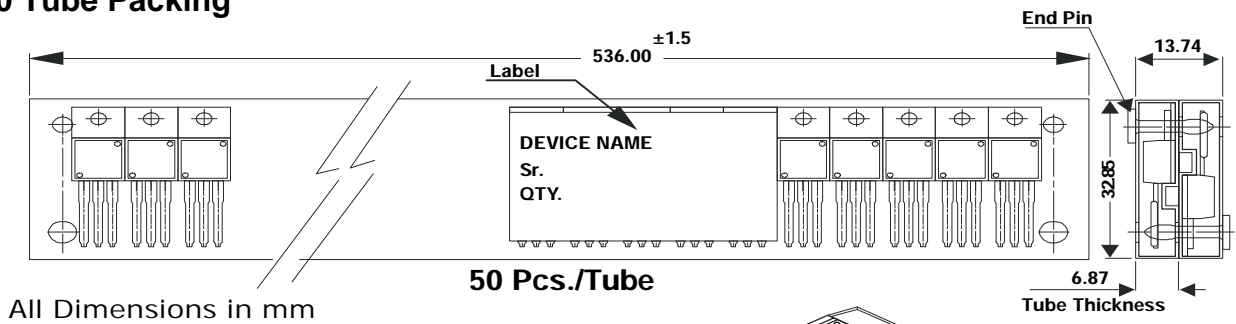
All dimensions in mm.



Pin Configuration

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

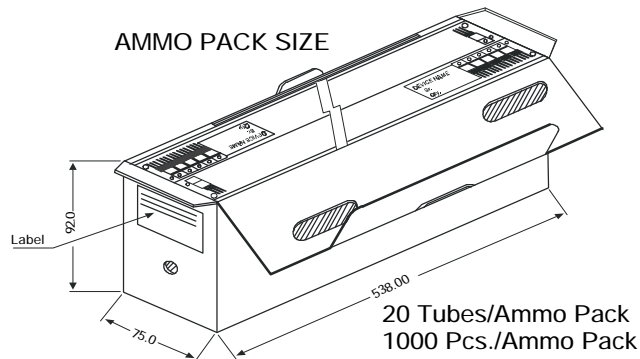
TO-220 Tube Packing



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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