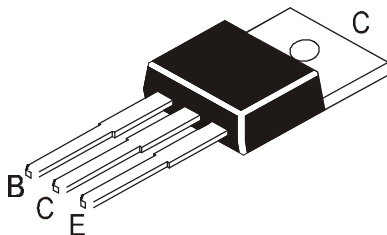


NPN SILICON EPITAXIAL POWER TRANSISTORS

C44C8, C44C11

TO - 220
Plastic Package



Medium Power Switching and Amplifier Applications

Complementary C45C Series

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	C44C8	C44C11	UNIT
Collector- Emitter Voltage	V_{CES}	70	90	V
Collector- Emitter Voltage	V_{CEO}	60	80	V
Emitter- Base Voltage	V_{EBO}	5		V
Collector Current Continuous	I_C	4		A
Peak *	I_{CM}	6		
Base Current Continuous	I_B	2		A
Power Dissipation $T_A=25^\circ\text{C}$ $T_C=25^\circ\text{C}$	P_D	1.67 30		W
Operating & Storage Junction Temperature Range	T_j, T_{stg}	-55 to +150		$^\circ\text{C}$

Thermal Resistance

Junction to Ambient	$R_{th(j-a)}$	75	$^\circ\text{C/W}$
Junction to Case	$R_{th(j-c)}$	4.2	$^\circ\text{C/W}$

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector- Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$ C44C8 C44C11	60 80	- -	- -	V V
Collector Cut off Current	I_{CES}	$V_{CE}=\text{Rated } V_{CES}$	-	-	10	μA
Emitter Cut off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	-	-	100	μA
DC Current Gain	h_{FE}^*	$I_C=0.2\text{A}, V_{CE}=1\text{V}$ $I_C=2\text{A}, V_{CE}=1\text{V}$	100 20	- -	220 -	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1\text{A}, I_B=50\text{mA}$	-	-	0.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1\text{A}, I_B=100\text{mA}$	-	-	1.3	V

Dynamic Characteristics

Collector Capacitance	C_{cbo}	$V_{CB}=10\text{V}, I_E=0$ $f=1\text{MHz}$	-	-	100	pF
Current Gain Bandwidth Product	f_T	$V_{CE}=4\text{V}, I_C=20\text{mA}$	-	50	-	MHz

Switching Characteristics

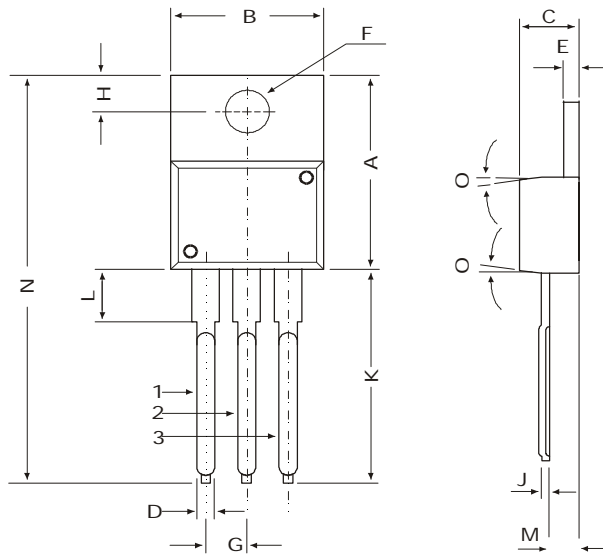
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Delay Time + Rise Time	$t_d + t_r$	$I_C=1\text{A}, I_{B1}=I_{B2}=0.1\text{A}$	-	100	-	ns
Storage Time	t_s	$V_{CC}=30\text{V}, t_p=25\mu\text{s}$	-	500	-	ns
Fall Time	t_f		-	75	-	ns

* Pulse Test Pulse Width =300ms, Duty Cycle $\leq 2\%$

C44C8, C44C11

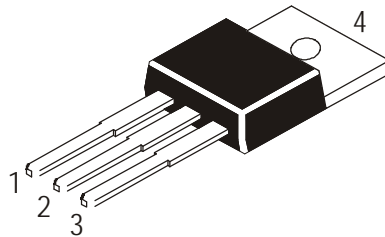
TO - 220 Plastic Package

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	

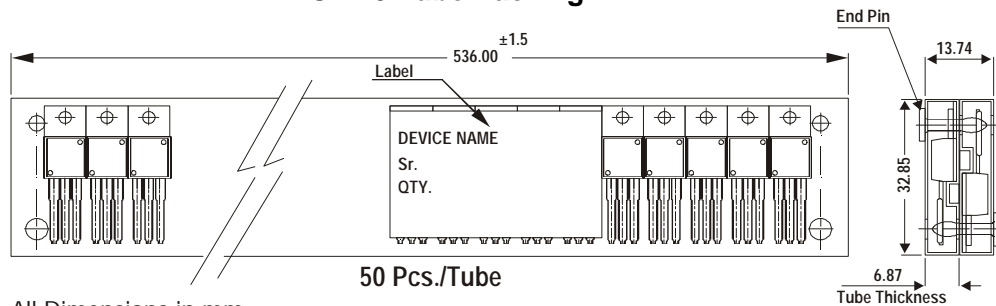
All dimensions in mm.



Pin Configuration

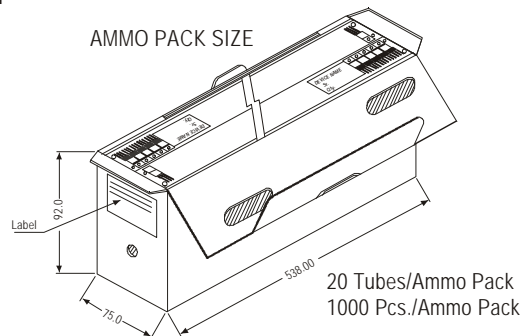
1. Base
2. Collector
3. Emitter
4. Collector

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	200 pcs/polybag	396 gm/200 pcs	3" x 7.5" x 7.5"	1K	17" x 15" x 13.5"	16K	36 kgs
	50 pcs/tube	135 gm/50 pcs	3.5" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	28 kgs

Disclaimer

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