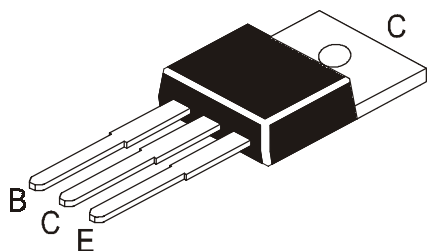


## NPN SILICON EPITAXIAL TRANSISTOR

**C44C8 , C44C11**



**TO-220**

**Plastic Package**

### Complementary C45C Series General Purpose Applications

#### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

DESCRIPTION	SYMBOL	C44C8	C44C11	UNIT
Collector -Emitter Voltage(VBE=0)	$V_{CES}$	70	90	V
Collector -Emitter Voltage(open base)	$V_{CEO}$	60	80	V
Emitter Base Voltage(open collector)	$V_{EBO}$		5.0	V
Collector Current Continuous	$I_C$		4.0	A
Collector Current Continuous (Peak*)	$I_{CM}$		6.0	A
Base Current	$I_B$		2.0	A
Total Power Dissipation upto Ta=25°C	$P_{tot}$		1.67	W
Total Power Dissipation upto Tc=25°C	$P_{tot}$		30	W
Junction Temperature	$T_j$		150	°C
Storage Temperature	$T_{stg}$		-65 to +150	°C

#### THERMAL RESISTANCE

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

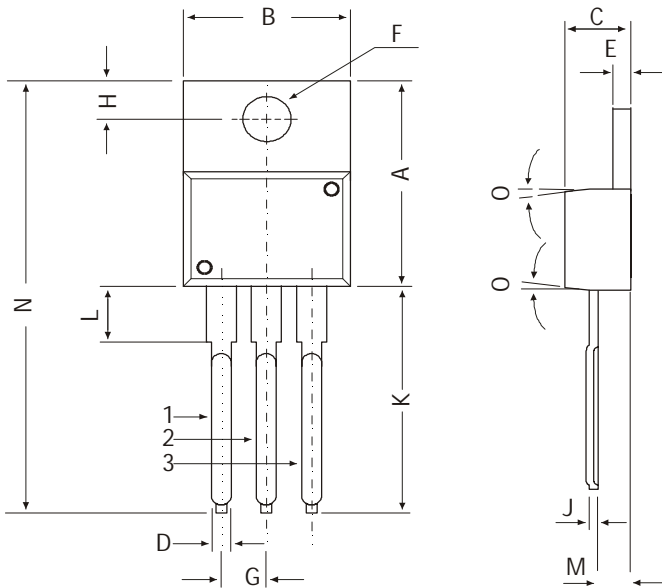
#### ELECTRICAL CHARACTERISTICS (Tc=25°C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	C44C8	C44C11	UNIT
Collector Cut off Current	$I_{CES}$	$V_{BE}=0, V_{CE}=\text{Rated } V_{CES}$	<10		μA
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	<100		μA
Collector Emitter Sustaining voltage	$V_{CEO(sus)}^*$	$I_C=100mA, I_B=0$	>60	>80	V
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C=1A, I_B=50mA$	<0.5		V
Base Emitter Saturation Voltage	$V_{BE(sat)}^*$	$I_C=1A, I_B=100mA$	<1.3		V
DC Current Gain	$h_{FE}^*$	$I_C=0.2A, V_{CE}=1V$	100-220		
	$h_{FE}^*$	$I_C=2A, V_{CE}=1V$ MIN	20		
Transition frequency	$f_T$	$I_C=20mA, V_{CE}=4V$ typ	50		MHz
Collector Capacitance	$C_{cbo}$	$V_{CB}=10V, I_E=0, f=1MHz$	100		pF
SWITCHING TIME					
Delay Time + Rise Time	$t_d + t_r$	$I_C=1A, I_{B1}=I_{B2}=0.1A$ typ	100		ns
Storage Time + Fall Time	$t_s$	$V_{CC}=30V, t_p=25\mu s$ typ	500		ns
	$t_f$	$V_{CC}=30V, t_p=25\mu s$ typ	75		ns

\*Pulse Test PW=300μs, Duty Cycle=2%

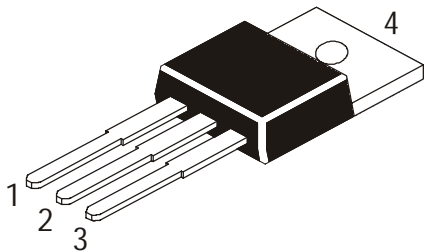
TO-220  
Plastic Package

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	

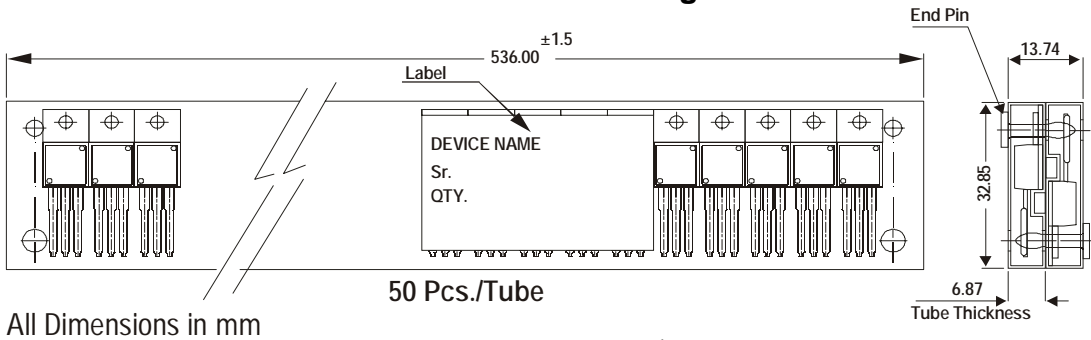
All dimensions in mm.



Pin Configuration

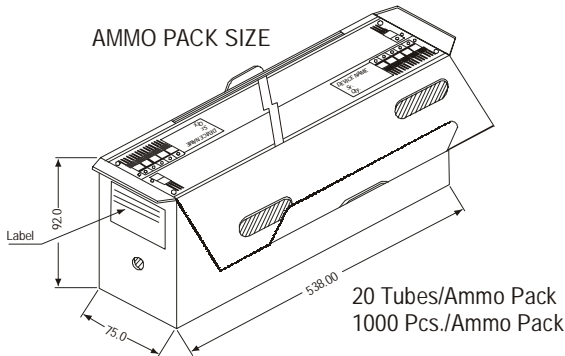
1. Base
2. Collector
3. Emitter
4. Collector

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 / 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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