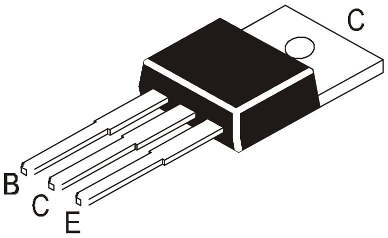
NPN SILICON EPITAXIAL POWER TRANSISTORS

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=25ºC	P_D	1.67		W
T_C=25ºC		30		
Operating & Storage Junction Temperature Range	$T_{j,\ Tstg}$	-55 to +150		ºC

Thermal Resistance

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

ELECTRICAL CHARACTERISTICS (Tc=25º C unless specified otherwise)

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

Dynamic Characteristics

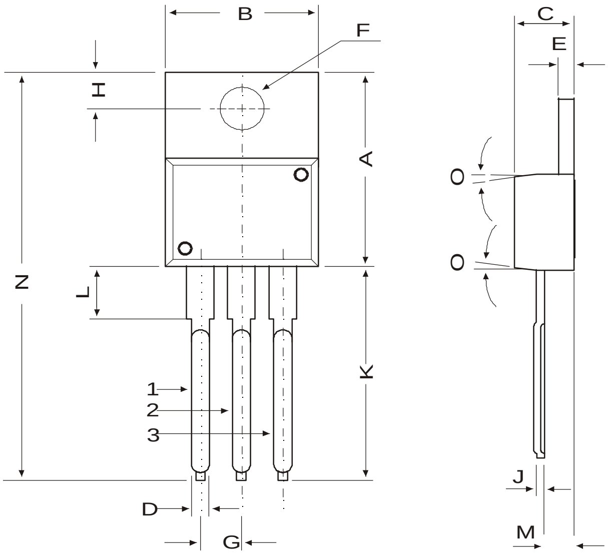
Collector Capacitance	C_{cbo}	V_{CB}=10V, I_E=0 f=1MHz	-	-	100	pF
Current Gain Bandwidth Product	f_T	V_{CE}=4V, I_C=20mA	-	50	-	MHz

Switching Characteristics

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

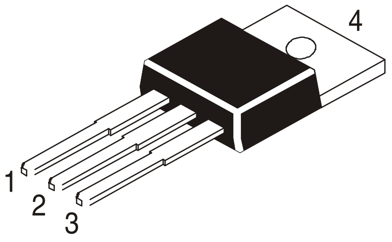
*** Pulse Test Pulse Width =300ms, Duty Cycle≤2%**

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	

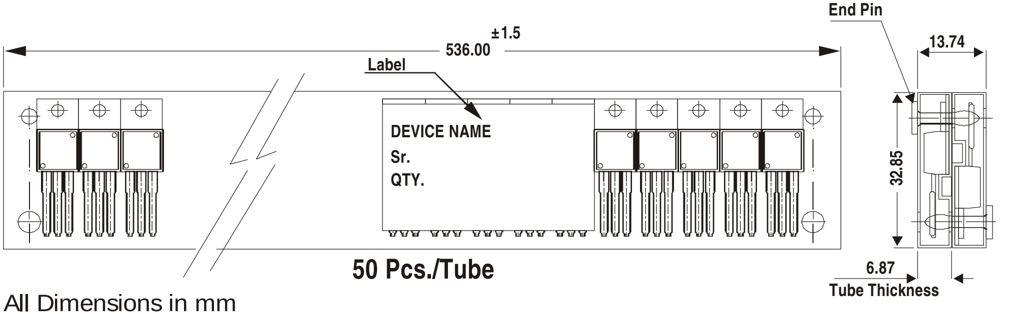
All diminsions in mm.



Pin Configuration

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

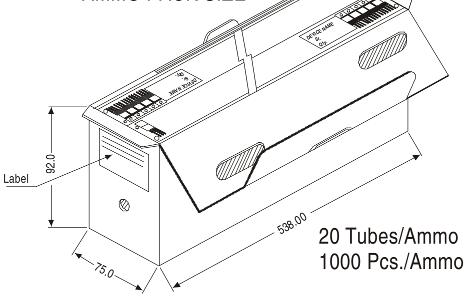
TO-220 Tube Packing



50 Pcs./Tube

All Dimensions in mm

AMMO PACK SIZE



20 Tubes/Ammo Pack
1000 Pcs./Ammo Pack

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

Notes

Disclaimer

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