

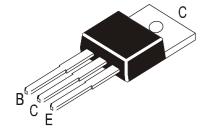
TUV MANAGEMENT SERVICE



An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

#### PNP PLASTIC POWER TRANSISTOR

C45C8



TO-220 Plastic Package

# **Medium Power Switching and Amplifier Applications**

**Complementary C44C8** 

#### **ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector- Emitter Voltage	$V_{CES}$	70	V
Collector- Emitter Voltage	$V_{CEO}$	60	V
Emitter- Base Voltage	$V_{EBO}$	5	V
Collector Current Continuous	I <sub>C</sub>	4	Α
Peak *	I <sub>CM</sub>	6	
Base Current Continuous	I <sub>B</sub>	2	А
Power Dissipation T <sub>A</sub> =25°C	P <sub>D</sub>	1.67	W
T <sub>C</sub> =25°C		30	
Operating & Storage Junction	T <sub>i, Tstg</sub>	- 55 to +150	°C
Temperature Range	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

#### **Thermal Resistance**

Junction to Ambient	R <sub>th</sub> (j-a)	75	°C/W
Junction to Case	R <sub>th</sub> (j-c)	4.2	°C/W

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector- Emitter Sustaing Voltage	$V_{CEO(sus)^*}$	$I_C=100$ mA, $I_B=0$	60			V
Collector Cut Off Current	ces	V <sub>CE</sub> =Rated V <sub>CES</sub>			10	μΑ
Emitter Cut Off Current	EBO	$V_{EB}=5V$ , $I_{C}=0$			100	μΑ
DC Current Gain	h <sub>FE</sub> *	$I_{C}$ =0.2A, $V_{CE}$ =1V $I_{C}$ =1A, $V_{CE}$ =1V	40		120	
		$I_C=1A$ , $V_{CE}=1V$	20			
Collector Emitter Saturation Voltage	V <sub>CE(sat)</sub> *	$I_C=1A$ , $I_B=50mA$			0.5	V
Base Emitter Saturation Voltage	V <sub>BE(sat)</sub> *	$I_C=1A$ , $I_B=100mA$			1.3	V

#### **Dynamic Characteristics**

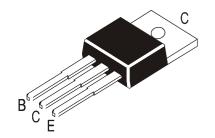
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Collector Capacitance	$C_cbo$	$V_{CB}=10V$ , $I_{E}=0$		125	pF
		f=1MHz			
Current Gain Bandwidth Product	f <sub>T</sub>	$V_{CE}=4V$ , $I_{C}=20mA$	40		MHz

<sup>\*</sup>Pulse Test Pulse Width<300ms, Duty Cycle<2%

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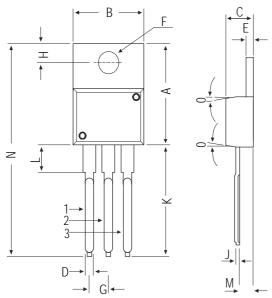
## ELECTRICAL CHARACTERISTICS (Tc=25°C Unless Otherwise Specified)

**Switching Time** 

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DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Delay Time + Rise Time	$t_d + t_r$	$I_C=1A$ , $I_{B1}=1_{B2}=0.1A$		50		ns
Storage Time	t <sub>s</sub>	V <sub>CC</sub> =30V, tp=25μs		500		ns
Fall Time	t <sub>f</sub>			50		!

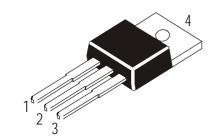
## TO-220 Plastic Package

# **TO-220 Plastic Package**



DIM	MIN	MAX		
А	14.42	16.51		
В	9.63	10.67		
С	3.56	4.83		
D	_	0.90		
Е	1.15	1.40		
F	3.75	3.88		
G	2.29	2.79		
Н	2.54	3.43		
J	<u> </u>			
K	12.70	14.73		
L	2.80	4.07		
М	2.03	2.92		
N	_	31.24		
0	7 DEG			

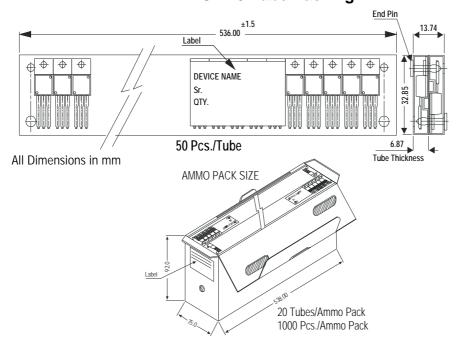




# Pin Configuration

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

## **TO-220 Tube Packing**



## **Packing Detail**

PACKAGE	STANDA	STANDARD PACK INNER CA		N BOX	OUTER C	ARTON BOX	
	Details	Net Weight/Oty	Size	Qty	Size Oty GrWt		
TO-220 /FP	200 pcs/polybag	396 gm/200 pcs	3"x7.5"x7.5"	1.0K	17" x 15" x 13.5"	16.0K	36 kgs
	50 pcs/tube	120 gm/50 pcs	3.5"x3.7"x21.5"	1.OK	19"x 19"x 19"	10.0K	29 kgs

Notes C45C8

TO-220 Plastic Package

#### **Disclaimer**

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