



NPN PLASTIC POWER TRANSISTORS

C

TIP47, TIP48 TIP49, TIP50

TO-220 Plastic Package

Line Operated Audio Output Amplifier, Switch Mode Power Supply Driver and General Purpose Switching Applications

	MAYIMIIM	DATINGS	(T -250C)
ABSOLUTE		RATINGS	$(I_a = Z \Im^{\circ} U)$

DESCRIPTION	SYMBOL	TIP47	TIP48	TIP49	TIP50	UNIT
Collector Emitter Voltage	V _{CEO}	250	300	350	400	V
Collector Base Voltage	V _{CBO}	350	400	450	500	V
Emitter Base Voltage	V _{EBO}	5.0				
Collector Current Continuous	I _C	1.0				
Collector Current Peak	I _{CM}	2.0				
Base Current	Ι _Β	0.6				
Power Dissipation upto T _c =25°C	P _D	40				W
Power Dissipation upto T _a =25°C	P _D	2.0				W
Derate above 25°C		16				
Operating and Storage Junction Temperature	T_{j},T_{stg}	- 65 to +150				°C

THERMAL RESISTANCE

B

E

Junction to Case	R _{th (j-c)}	3.125	°C/W
Junction to Ambient in free air	R _{th (j-a)}	62.5	°C/W

ELECTRICAL CHARACTERISTICS (T_c=25°C unless specified otherwise)

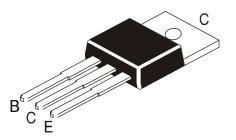
DESCRIPTION	SYMBOL	TEST CONDIT	MIN	ΤΥΡ	MAX	UNIT	
Collector Emitter (sus) Voltage	$*V_{CEO(sus)}$	I _C =30mA, I _B =0					
		TIP47		250			V
		TIP48		300			V
		TIP49		350			V
		TIP50		400			V
Collector Cut off Current	I _{CEO}	V _{CE} =150V, I _B =0	TIP47			1.0	mA
		V _{CE} =200V, I _B =0	TIP48			1.0	mA
		V _{CE} =250V, I _B =0	TIP49			1.0	mA
		V _{CE} =300V, I _B =0	TIP50			1.0	mA
Collector Cut off Current	I _{CES}	$V_{CE} = V_{CB(max)}, V_{CE}$	/ _{BE} =0			1.0	mA
Emitter Cut off Current	I _{EBO}	V_{BE} =5V, I _C =0				1.0	mA
DC Current Gain	*h _{FE}	I _C =0.3A, V _{CE} =10V		30		150	
		I _C =1A, V _{CE} =1	0V	10			
Collector Emitter Saturation Voltage	*V _{CE (sat)}	I _C =1A, I _B =0.2A				1.0	V
Base Emitter on Voltage	*V _{BE(on)}	I _C =1A, V _{CE} =10V				1.5	V

*Pulse Test : Pulse width <300ms, Duty Cycle <2%

NPN PLASTIC POWER TRANSISTOR

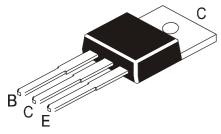
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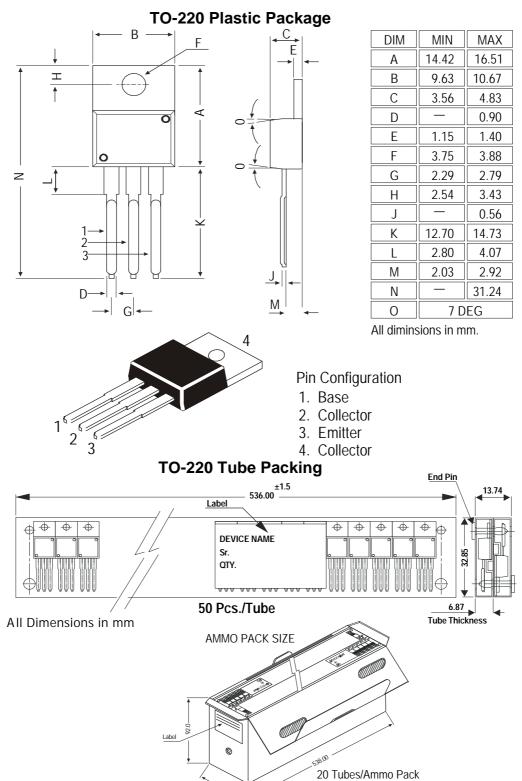
DYNAMIC CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	ΤΥΡ	MAX	UNIT
Small Signal Current Gain	h _{fe}	I_C =0.2A, V_{CE} =10V, f=1KHz	25			
Transition Frequency	f _T	I_C =0.2A, V_{CE} =10V, f=2MHz	10			MHz



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1000 Pcs./Ammo Pack

Packing Details

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size Qty Gr W		Gr Wt
TO-220	200 pcs/polybag 50 pcs/tube	5 1	3" x 7.5" x 7.5" 3.5" x 3.7" x 21.5"	1.0K 1.0K	17" x 15" x 13.5" 19" x 19" x 19"	16.0K 10.0K	36 kgs 29 kgs

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Disclaimer

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