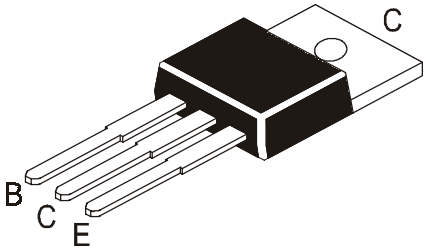
Continental Device India Limited

An ISO/TS16949 and ISO 9001 Certified Company

NPN PLASTIC POWER TRANSISTOR

2N5496



TO-220
Plastic Package

Medium Power Switching and Amplifier Applications

ABSOLUTE MAXIMUM RATINGS (Ta=25ºC)

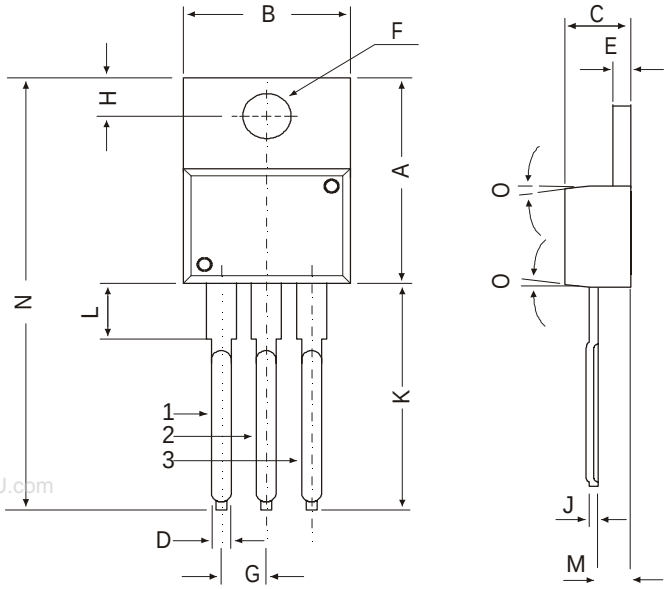
DESCRIPTION		VALUE	UNIT
Collector Base Voltage (Open emitter)	V_{CBO}	90	V
Collector Emitter Voltage(open base)	V_{CEO}	70	V
Collector Emitter Voltage(Vbe=1.5)	V_{CEV}	90	V
Collector Emitter Voltage(Rbe=100Ω)	V_{CER}	80	V
Emitter Base Voltage(open collector)	V_{EBO}	5.0	V
Collector Current Continuous	I_C	7.0	A
Base Current	I_B	3	A
Power Dissipation upto Ta=25ºC	P_D	1.8	W
Power Dissipation upto Tc=25ºC	P_D	50	W
Junction Temperature	T_j	150	ºC
Storage Temperature	T_{stg}	-65 to +150	ºC
THERMAL RESISTANCE			
Junction to Case	$R_{th\ (j-c)}$	2.5	ºC/W
Junction to Ambient	$R_{th\ (j-a)}$	70	ºC/W

ELECTRICAL CHARACTERISTICS (Tc=25ºC Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut off Current	I_{CEV}	V_{BE}=0,V_{CE}=85V, V_{BE}=1.5V			1.0	mA
	I_{CEV}	V_{BE}=0,V_{CE}=85V, V_{BE}=1.5V,T_C=150 C			5.0	mA
	I_{CER}	V_{CE}=70V,R_{BE}=100W			0.5	mA
	I_{CER}	V_{CE}=70V,R_{BE}=100W, Tc=150^O C			3.5	mA
Emitter Cut off Current	I_{EBO}	V_{EB}=5V, I_C=0			1.0	mA
Breakdown sus voltages	$V_{CEO(sus)}$ *	I_C=100mA, I_B=0	70			V
	$V_{CER(sus)}$ *	I_C=100mA, R_{BE}=100W	80			V
	$V_{CEV\ (sus)}$ *	I_C=100mA, V_{BE}=1.5V	90			V
Base Emitter on Voltage	$V_{BE(on)}$	I_C=3.5A,V_{CE}=4V			1.7	V
Collector Emitter Saturation Voltage	$V_{CE(sat)}$*	I_C=3.5A, I_B=3.5A			1.0	V
DC Current Gain	h_{FE} *	I_C=3.5A,V_{CE}=4V	20		100	
Transition frequency	f_T	I_C=500mA,V_{CE}=4V		0.8		MHz
SWITCHING TIME						
Turn on time	t_{on}	Vcc=30V,I_C=3.5A, I_{B1}=I_{B2}=0.35A		5.0		µs
Turn off time	t_{off}	Vcc=30V,I_C=3.5A, I_{B1}=I_{B2}=0.35A		15		µs

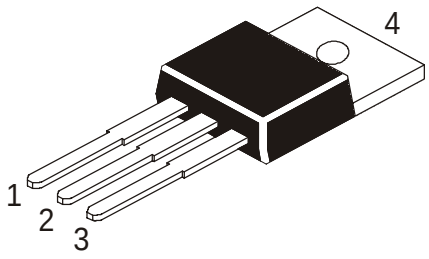
***Pulse Test : Pulse duration =300us**

TO-220 Plastic Package



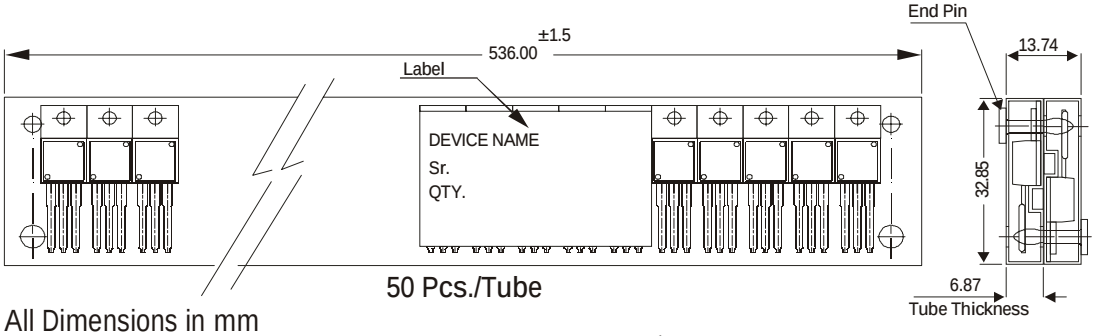
DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

All diminsions in mm.



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

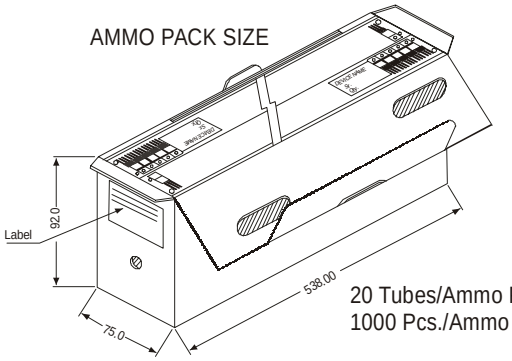
TO-220 Tube Packing



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 / FP	200 pcs/polybag 50 pcs/tube	396 gm/200 pcs 120 gm/50 pcs	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

Disclaimer

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