

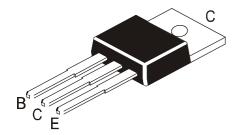
TUV MANAGEMENT SERVICE

An ISO/TS16949 and ISO 9001 Certified Company

#### NPN PLASTIC POWER TRANSISTOR

SJE1349

TO-220 Plastic Package



### **Power Linear and Switching Applications**

### **ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V <sub>CBO</sub>	73	V
Collector Emitter Voltage	V <sub>CEO</sub>	63	V
Emitter Base Voltage	V <sub>EBO</sub>	7	V
Collector Current	I <sub>C</sub>	6	А
Collector Current Peak	I <sub>CM</sub>	10	А
Base Current Continuous	I <sub>B</sub>	2	А
Power Dissipation upto T <sub>c</sub> =25°C	$P_{D}$	65	W
Operating And Storage Junction Temperature Range	$T_{j},T_{stg}$	- 65 to +150	°C

#### THERMAL RESISTANCE

Junction to Ambient in free air	R <sub>th (j-a)</sub>	62.5	°C/W
Junction to Case	R <sub>th (j-c)</sub>	1.92	°C/W

### ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C Unless Specified Otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter (sus) Voltage	*V <sub>CEO (sus)</sub>	$I_C=30$ mA, $I_B=0$	63			V
Collector Cut Off Current	I <sub>CBO</sub>	$V_{CB}=63V$ , $I_{E}=0$			0.3	mΑ
Collector Cut Off Current	I <sub>CES</sub>	$V_{CE}$ =73V, $V_{BE}$ =0			0.3	mΑ
Emitter Cut Off Current	₽BO	$V_{EB} = 5.2V, I_{C} = 0$			0.9	mA
DC Current Gain	*h <sub>FE</sub>	$I_C=4A$ , $V_{CE}=4V$	43		100	
Collector Emitter Saturation Voltage	*V <sub>CE (sat)</sub>	I <sub>C</sub> =4A, I <sub>B</sub> =480mA			1.07	V
		$I_C=10A$ , $I_B=1A$			3.0	V

### **Switching Time**

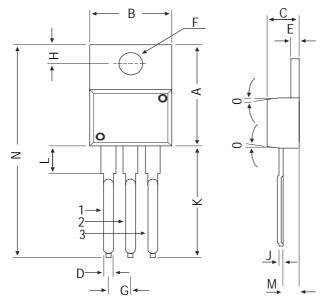
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Small Signal Current	h <sub>fe</sub>	$I_C$ =0.5A, $V_{CE}$ =10V, f=1KHz	20			
Transition Frequency	f <sub>T</sub>	$I_C$ =0.5A, $V_{CE}$ =10V, f=1MHz	3			MHz

<sup>\*</sup>Pulse test  $t_p \leq 300$  ms, Duty cycle  $\leq 2\%$ 

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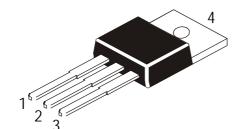
**Plastic Package** 

### **TO-220 Plastic Package**



DIM	MIN	MAX				
Α	14.42	16.51				
В	9.63	10.67				
С	3.56	4.83				
D	_	0.90				
E	1.15	1.40				
F	3.75	3.88				
G	2.29	2.79				
Н	2.54	3.43				
J	_	0.56				
K	12.70	14.73				
L	2.80	4.07				
М	2.03	2.92				
N	_	31.24				
0	7 DEG					

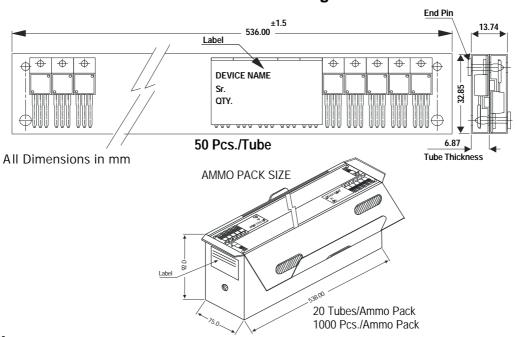
All diminsions in mm.



# Pin Configuration

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

## **TO-220 Tube Packing**



### **Packing Detail**

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details Net Weight / Oty		Size	Oty	Size	Qty	Gr Wt
TO-220	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. <b>0</b> K	19" x 19" x 19"	10.0K	29 kgs

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Notes SJE1349

TO-220 Plastic Package

#### **Disclaimer**

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