

MJE15032

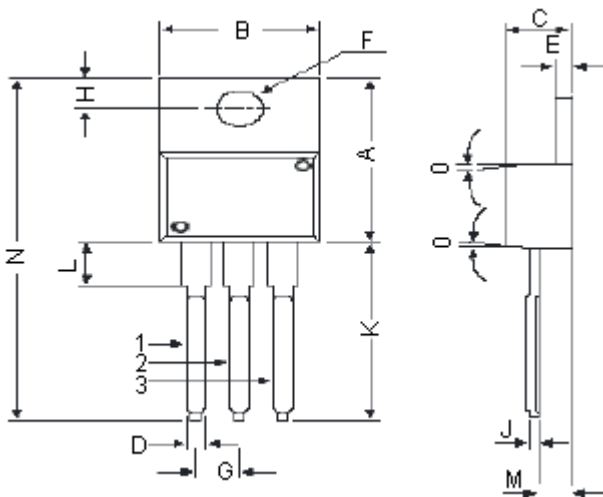
Power Transistor



Features:

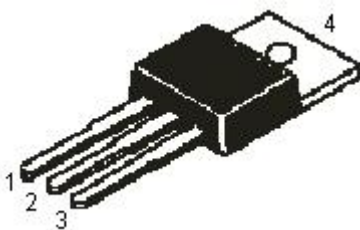
- High power complimentary pairs.
- For high quality audio output stages, and general purpose push-pull amplifier configurations.
- Silicon epitaxial fabrication power transistors.
- High - frequency drivers in audio amplifier.

TO-220 Plastic Package



Dimensions	Minimum	Maximum
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°	

Dimensions : Millimetres



Pin Configuration:

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



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	250	V
Collector Emitter Voltage	V_{CEO}		
Emitter Base Voltage	V_{EBO}	5	
Collector Current Continuous Peak	I_C	8 16	A
Base Current	I_B	2	
Power Dissipation $T_C = 25^\circ\text{C}$ Derate Above 25°C	P_D	50 0.4	W W/ $^\circ\text{C}$
Power Dissipation $T_A = 25^\circ\text{C}$ Derate Above 25°C	P_D	2 0.016	
Operating and Storage Junction Temperature Range	T_j, T_{stg}	-65 to +150	$^\circ\text{C}$

Thermal Resistance

Thermal Ambient	$R_{th(j-a)}$	62.5	$^\circ\text{C/W}$
Junction to Case	$R_{th(j-c)}$	2.5	

Electrical Characteristics ($T_C = 25^\circ\text{C}$ unless specified otherwise)

Parameter	Symbol	Test Condition	Minimum	Maximum	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}^*$	$I_C = 10\text{mA}, I_B = 0$	250	-	V
Collector Cut off Current	I_{CBO}	$V_{CB} = 150\text{V}, I_E = 0$	-	10	μA
Emitter Cut off Current	I_{EBO}	$V_{BE} = 5\text{V}, I_C = 0$	-		
DC Current Gain	h_{FE}^*	$I_C = 0.5\text{A}, V_{CE} = 5\text{V}$ $I_C = 1.0\text{A}, V_{CE} = 5\text{V}$ $I_C = 2\text{A}, V_{CE} = 5\text{V}$	50 50 10	-	-
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C = 1\text{A}, I_B = 0.1\text{A}$	-	0.5	V
Base Emitter On Voltage	$V_{BE(on)}^*$	$I_C = 1.0\text{A}, V_{CE} = 5\text{V}$	-	1.0	
Dynamic Characteristics					
Current Gain-Bandwidth Product	f_T^{**}	$I_C = 500\text{mA}, V_{CE} = 10\text{V}$ $f_{test} = 1\text{MHz}$	30	-	MHz

*Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

** $f_T = |h_{fe}| \cdot f_{test}$

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Power Transistor



Specifications

I_C (av) Maximum (A)	V_{CEO} Maximum (V)	h_{FE} Minimum at $I_C = 1A$	P_D at 25°C (W)	Package	Type	Part Number
1	250	50	50	TO-220	NPN	MJE15032



Notes:

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