

## Silicon NPN Power Transistors

## MJE15032

## DESCRIPTION

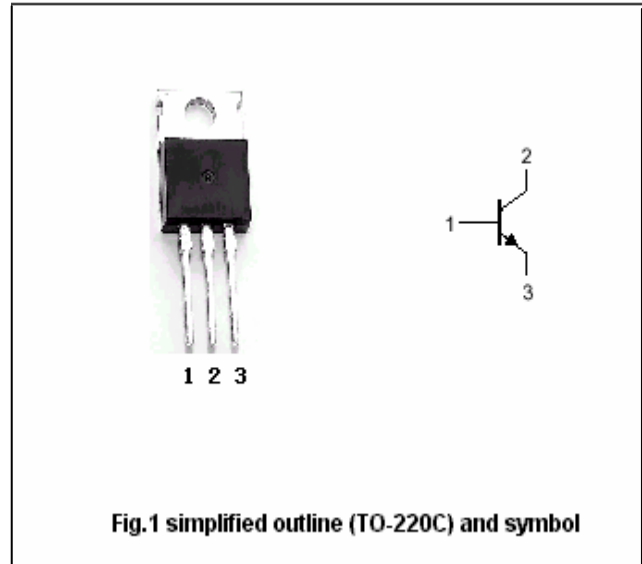
- With TO-220C package
- Complement to type MJE15033
- High transition frequency
- DC current gain specified to 5.0 amperes
  - $h_{FE} = 50$  (Min) @  $I_C = 0.5$  Adc
  - $h_{FE} = 10$  (Min) @  $I_C = 2.0$  Adc

## APPLICATIONS

- Designed for use as high-frequency drivers in audio amplifiers.

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

ABSOLUTE MAXIMUM RATINGS( $T_C=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	250	V
$V_{CEO}$	Collector-emitter voltage	Open base	250	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current (DC)		8	A
$I_{CM}$	Collector current-Peak		16	A
$I_B$	Base current		2	A
$P_D$	Total power dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_C=25^\circ\text{C}$	50	
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-65~150	$^\circ\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{thj-C}$	Thermal resistance ; junction to case	2.5	$^\circ\text{C}/\text{W}$
$R_{thj-A}$	Thermal resistance , junction to ambient	62.5	$^\circ\text{C}/\text{W}$

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T<sub>j</sub>=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =10mA; I <sub>B</sub> =0	250			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =1A; I <sub>B</sub> =0.1A			0.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =1A; V <sub>CE</sub> =5V			1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =150V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			10	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.5A; V <sub>CE</sub> =5V	50			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =5V	50			
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =2A; V <sub>CE</sub> =5V	10			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A; V <sub>CE</sub> =10V; f=1.0MHz	30			MHz

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PACKAGE OUTLINE

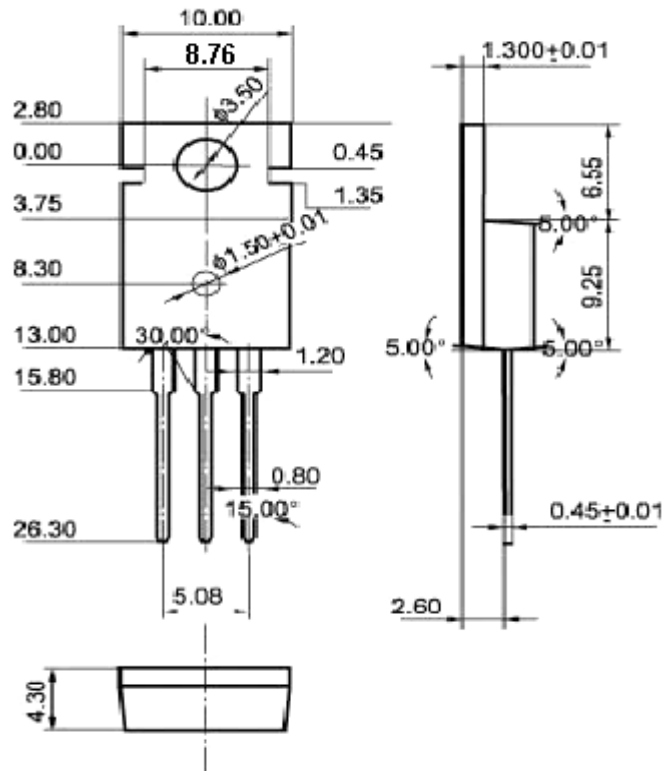


Fig.2 Outline dimensions (unindicated tolerance: ±0.10mm)