

Silicon NPN Power Transistors

MJE15032

DESCRIPTION

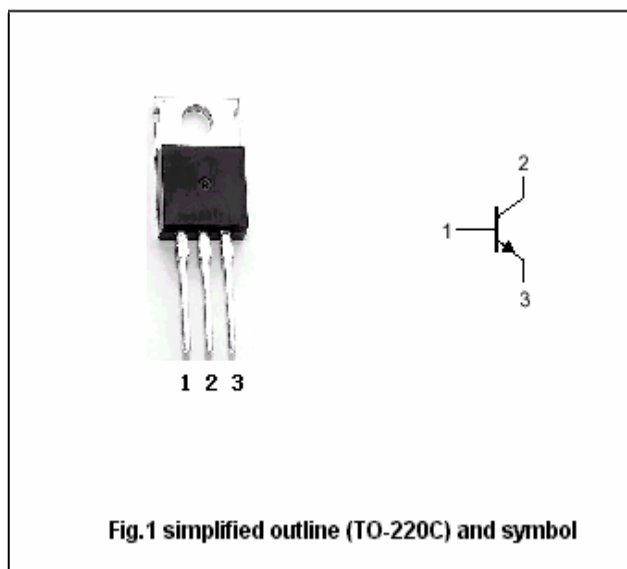
- With TO-220C package
- Complement to type MJE15033
- High transition frequency
- DC current gain specified to 5.0 amperes
 - $h_{FE} = 50 \text{ (Min) @ } I_C = 0.5 \text{ A}$
 - $h_{FE} = 10 \text{ (Min) @ } I_C = 2.0 \text{ A}$

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	$^\circ\text{C/W}$
R_{thj-A}	Thermal resistance , junction to ambient	62.5	$^\circ\text{C/W}$

Silicon NPN Power Transistors

MJE15032

CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-emitter sustaining voltage	$I_C=10mA; I_B=0$	250			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=1A; I_B=0.1A$			0.5	V
V_{BE}	Base-emitter on voltage	$I_C=1A; V_{CE}=5V$			1.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=150V; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			10	μA
h_{FE-1}	DC current gain	$I_C=0.5A; V_{CE}=5V$	50			
h_{FE-2}	DC current gain	$I_C=1A; V_{CE}=5V$	50			
h_{FE-3}	DC current gain	$I_C=2A; V_{CE}=5V$	10			
f_T	Transition frequency	$I_C=0.5A; V_{CE}=10V; f=1.0MHz$	30			MHz

Silicon NPN Power Transistors

MJE15032

PACKAGE OUTLINE

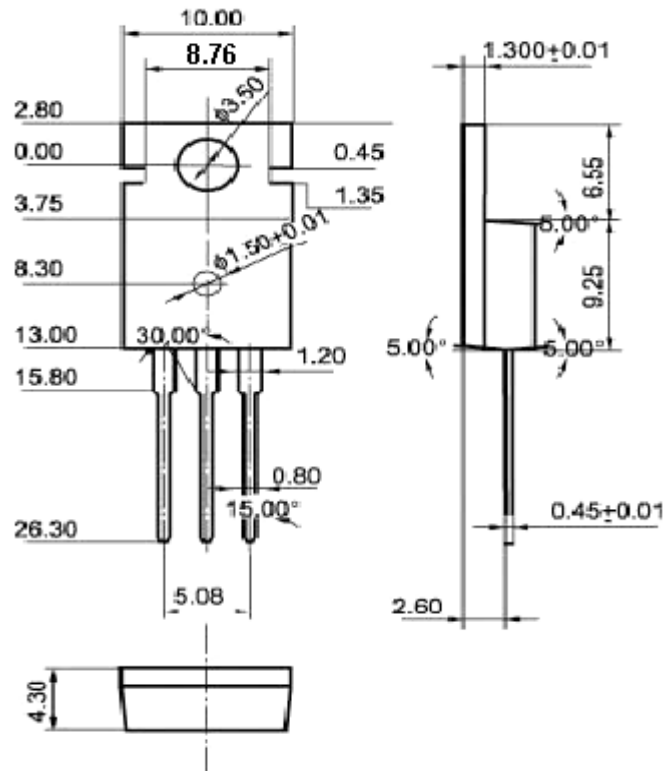


Fig.2 Outline dimensions (unindicated tolerance: ±0.10mm)