

Silicon NPN Power Transistor

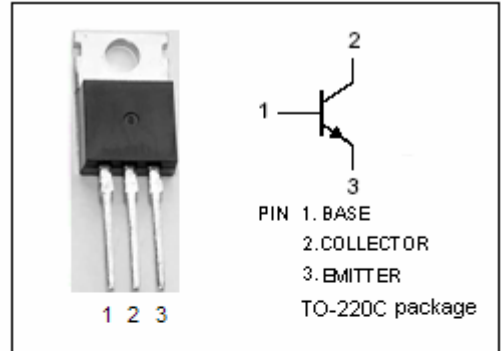
MJE15032

DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 250V(\text{Min})$
- DC current gain -  
:  $h_{FE} = 50 (\text{Min}) @ I_C = 0.5 \text{ A}$   
:  $h_{FE} = 10 (\text{Min}) @ I_C = 2.0 \text{ A}$
- Complement to Type MJE15033

APPLICATIONS

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

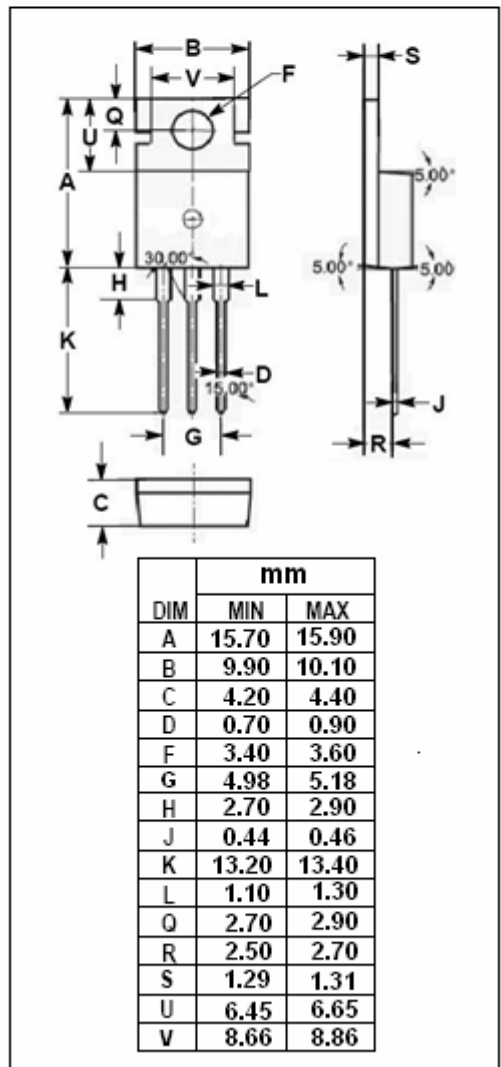


ABSOLUTE MAXIMUM RATINGS (Ta=25 )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	250	V
$V_{CEO}$	Collector-Emitter Voltage	250	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	8	A
$I_{CM}$	Collector Current-Peak	16	A
$I_B$	Base Current	2	A
$P_C$	Collector Power Dissipation @ $T_a=25$	2	W
	Collector Power Dissipation @ $T_C=25$	50	
$T_j$	Junction Temperature	150	
$T_{stg}$	Storage Temperature	-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	2.5	/W
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	/W



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEO(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(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V		1.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 150V; I <sub>E</sub> = 0		10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0		10	μ A
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>	Current Gain-Bandwidth Product	I <sub>C</sub> = 0.5A; V <sub>CE</sub> = 10V; f <sub>test</sub> = 1.0MHz	30		MHz