

isc 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
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

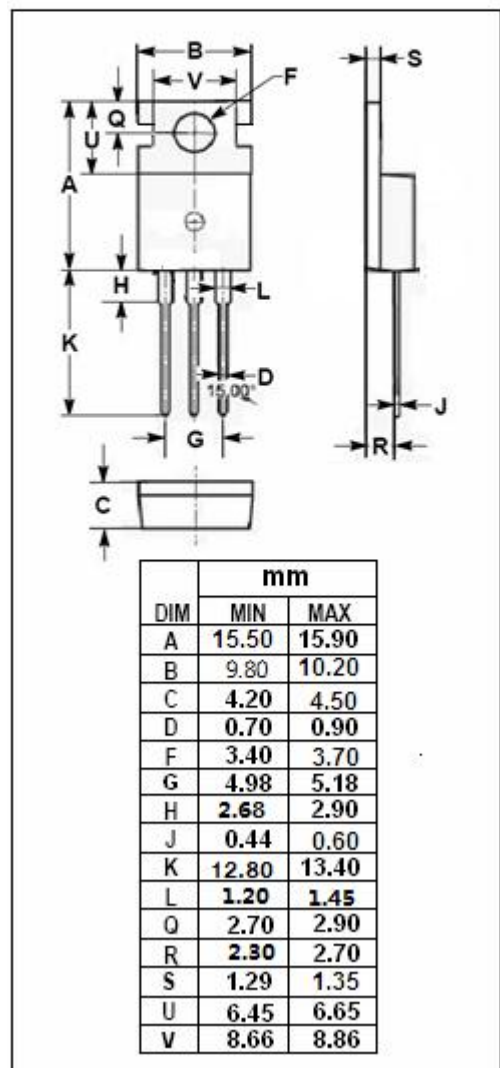
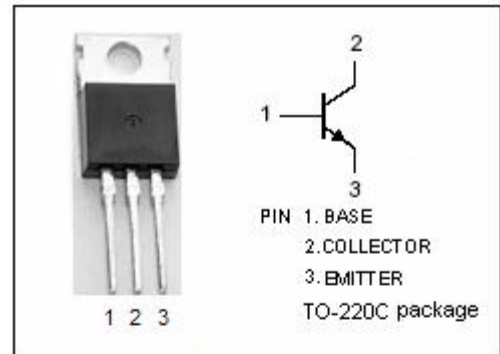
- Designed for use as high-frequency drivers in audio amplifiers.

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

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 @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	50	
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(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(on)}	Base-Emitter On Voltage	I _C = 1A ; V _{CE} = 5V		1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 250V; I _E = 0		10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		10	μ A
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	Current Gain-Bandwidth Product	I _C = 0.5A; V _{CE} = 10V; f _{test} = 1.0MHZ	30		MHZ

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