

isc Silicon NPN Power Transistor

MJE4343

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 160V(\text{Min})$
- DC current gain -
: $h_{FE} = 15 (\text{Min}) @ I_C = 8 A$
: $h_{FE} = 8 (\text{Min}) @ I_C = 16A$
- Complement to Type MJE4353
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

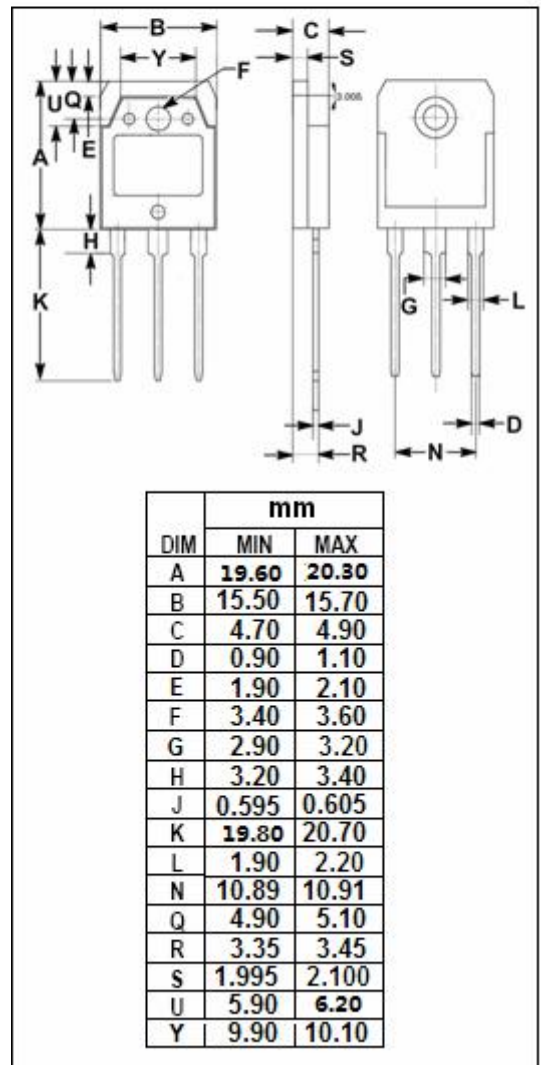
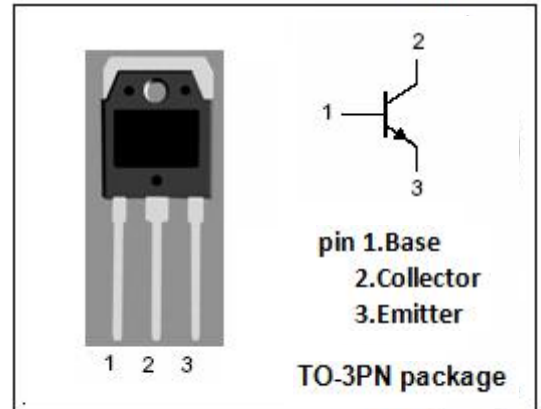
- For use in high power audio amplifier and switching regulator circuits

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	16	A
I_B	Base Current	5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	125	W
T_j	Junction Temperature	-65~150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 100mA ; I _B = 0	160		V
V _{CE(sat)} -1	Collector-Emitter Saturation Voltage	I _C = 8A ; I _B = 0.8A		2.0	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C = 16A ; I _B = 2A		3.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 16A ; I _B = 2A		3.9	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 16A ; V _{CE} = 4V		3.9	V
I _{CBO}	Collector-Base Cutoff Current	V _{CB} = 160V; I _E = 0		750	μ A
I _{CEO}	Collector-Emitter Cutoff Current	V _{CB} = 80V; I _E = 0		750	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0		1	mA
h _{FE-1}	DC Current Gain	I _C = 8A ; V _{CE} = 2V	15		
h _{FE-2}	DC Current Gain	I _C = 16A ; V _{CE} = 4V	8		

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