

isc Silicon NPN Power Transistor

MJW21192

DESCRIPTION

- DC Current Gain Specified up to 8.0 Amperes at Temperature
- High DC Current Gain - $h_{FE} = 5(\text{Min}) @ I_C = 8 \text{ Adc}$
- TO-3PN Package
- Complement to Type MJW21191
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

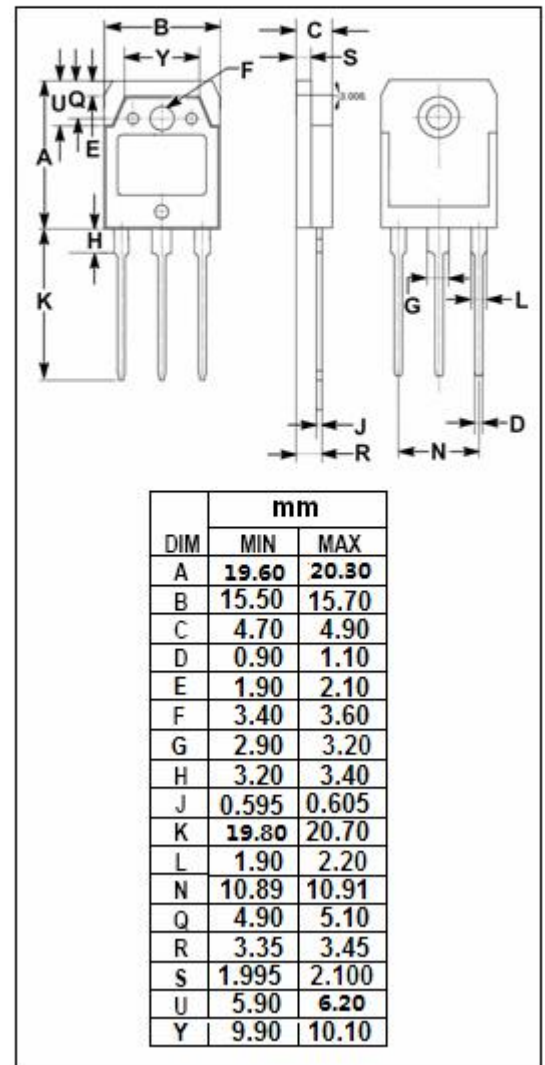
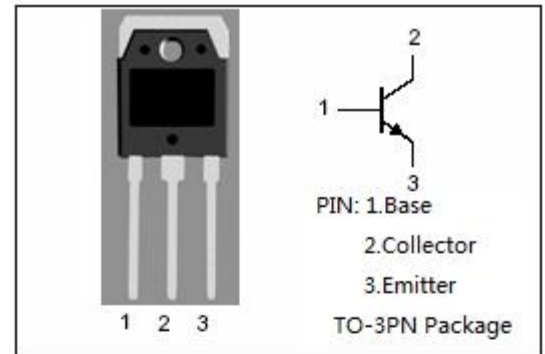
- Designed for power audio output, or high power drivers in audio amplifiers applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Pulse	16	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.65	$^\circ\text{C}/\text{W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	50	$^\circ\text{C}/\text{W}$



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 10mA ; I _B = 0	150			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 0.4A			1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 1.6A			2.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 4A; V _{CE} = 2V			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 150V; I _E = 0			10	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 150V; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			10	μ A
h _{FE-1}	DC Current Gain	I _C = 4A ; V _{CE} = 2V	15		100	
h _{FE-2}	DC Current Gain	I _C = 8A ; V _{CE} = 2V	5			
f _T	Current-Gain—Bandwidth Product	I _E = 1A ; V _{CE} = 10V	4			MHz

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