

# isc Silicon NPN Power Transistor

# MJW21194

## DESCRIPTION

- Total Harmonic Distortion Characterized
- High DC Current Gain -  
 $h_{FE} = 20-80 @ I_C = 8 \text{ Adc}$
- Complement to Type MJW21193
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

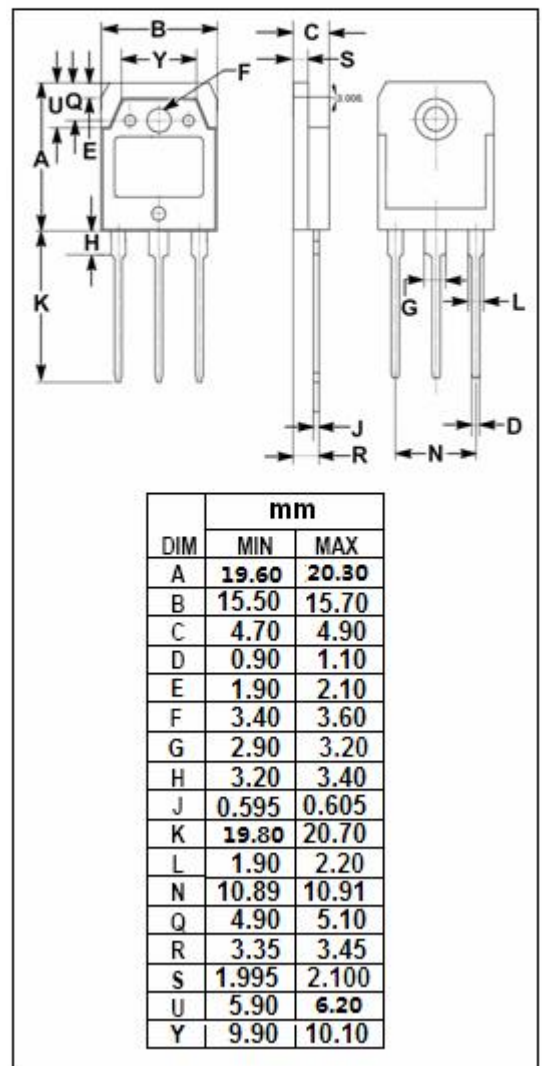
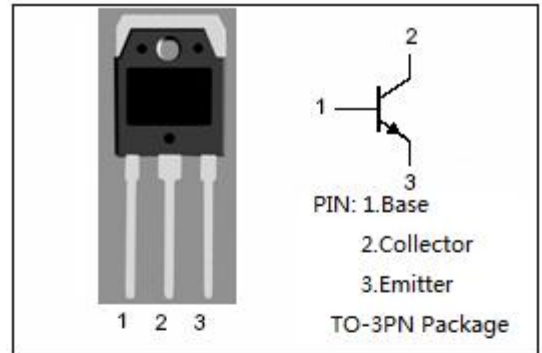
- Designed for high power audio output, disk head positioners and linear applications.

## ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	400	V
V <sub>CEO</sub>	Collector-Emitter Voltage	250	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current-Continuous	16	A
I <sub>CM</sub>	Collector Current-Pulse	30	A
I <sub>B</sub>	Base Current-Continuous	5	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	200	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-65~150	°C

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.7	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	40	°C/W



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## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C 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)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 0.8A		1.4	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 16A; I <sub>B</sub> = 3.2A		4.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 8A; V <sub>CE</sub> = 5V		2.2	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 400V; I <sub>E</sub> = 0		100	μ A
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 200V; I <sub>E</sub> = 0		100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0		100	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 8A ; V <sub>CE</sub> = 5V	20	80	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 16A ; V <sub>CE</sub> = 5V	8		

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