

# isc Silicon PNP Power Transistor

# MJW21191

## DESCRIPTION

- DC Current Gain Specified up to 8.0 Amperes at Temperature
- High SOA: 20 A, 18 V, 100 ms
- TO-3PN Package
- Complement to Type MJW21192
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

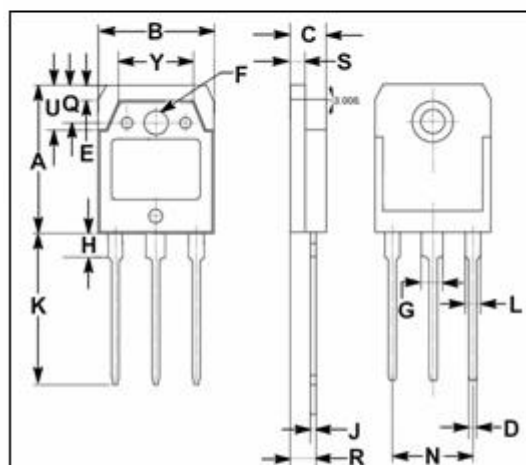
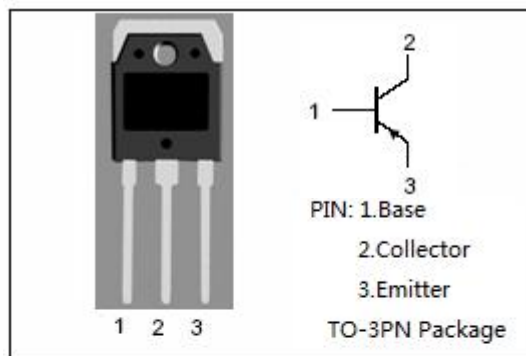
- designed for power audio output, or high power drivers in audio amplifiers applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	150	V
V <sub>CEO</sub>	Collector-Emitter Voltage	150	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current-Continuous	8	A
I <sub>CM</sub>	Collector Current-Pulse	16	A
I <sub>B</sub>	Base Current-Continuous	2	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	100	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.65	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	50	°C/W



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 10mA ; I <sub>B</sub> = 0	150			V
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.4A			1.0	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 1.6A			2.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 4A; V <sub>CE</sub> = 2V			2.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 250V; I <sub>E</sub> = 0			10	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			10	μA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 4A ; V <sub>CE</sub> = 2V	15		100	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 8A ; V <sub>CE</sub> = 2V	5.0			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = 1A ; V <sub>CE</sub> = 10V	4			MHz

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