

isc Silicon NPN Power Transistor

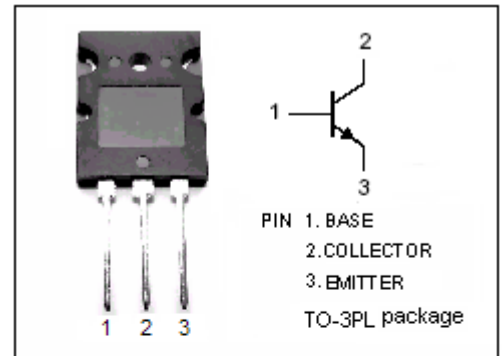
MJL21194

DESCRIPTION

- Total Harmonic Distortion Characterized
- High DC Current Gain
- High Area of Safe Operation

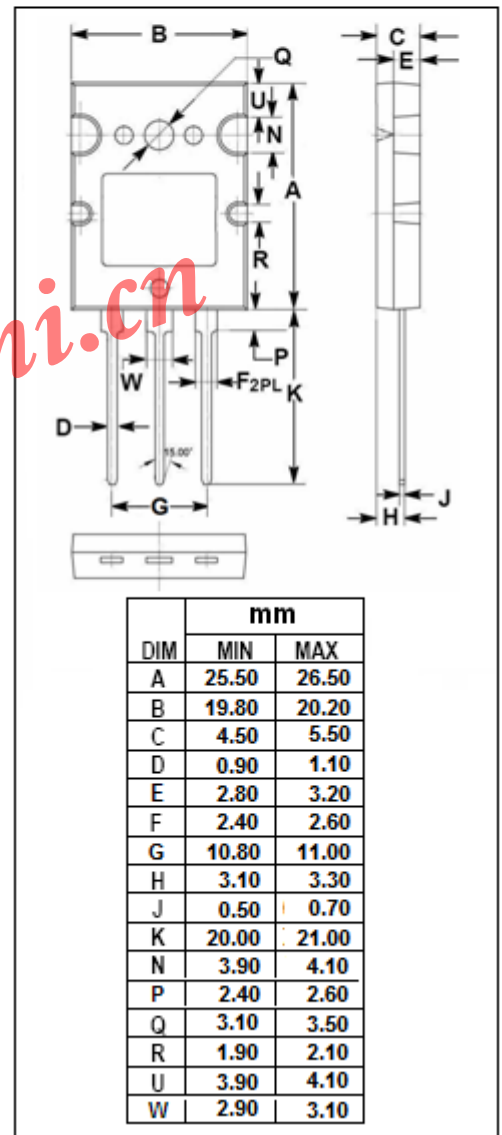
APPLICATIONS

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



ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Emitter 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-Pulsed	30	A
I <sub>B</sub>	Base Current-Continuous	5	A
P <sub>D</sub>	Total Power Dissipation (T <sub>C</sub> =25°C)	200	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-65~150	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th j-c</sub>	ThermalResistance Junction To Case	0.7	°C/W

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## ELECTRICAL CHARACTERISTICS

T<sub>j</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> =100mA; 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	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>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> =200V, I <sub>B</sub> =0			0.1	mA
I <sub>CEX</sub>	Collector Cutoff Current	V <sub>CE</sub> =250V; V <sub>BE(off)</sub> =1.5V			0.1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			100	μA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> =8A; V <sub>CE</sub> =5V	25		75	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> =16A; V <sub>CE</sub> =5V	8			
C <sub>OB</sub>	Collector Capacitance	I <sub>E</sub> = 0; f=1MHz; V <sub>CB</sub> =-10V			500	pF
f <sub>T</sub>	Current Gain-Bandwidth Product	I <sub>C</sub> =1A; V <sub>CE</sub> = 10V; f <sub>test</sub> =1MHz	4			MHz