

isc Silicon PNP Power Transistor

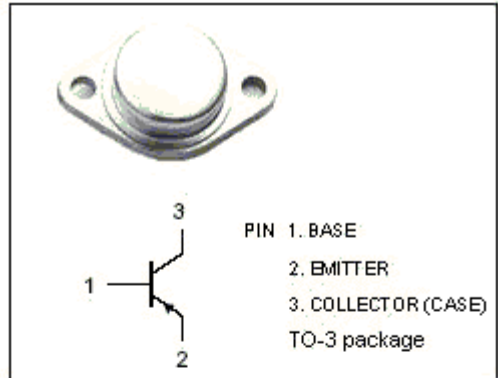
MJ21193

DESCRIPTION

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

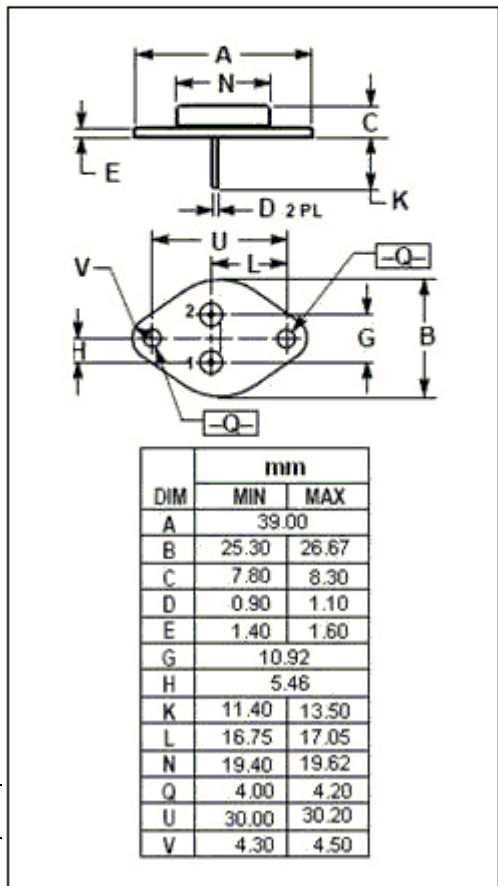
APPLICATIONS

- 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)	250	W
T <sub>j</sub>	Junction Temperature	200	°C
T <sub>stg</sub>	Storage Temperature	-65~200	°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	μ A
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