

Silicon PNP Power Transistor

MJ21193

DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-
: $h_{FE} = 25-75 @ I_C = -8A, V_{CE} = -5V$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = -1.4 V(\text{Max}) @ I_C = -8A$
- Complement to the NPN MJ21194
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

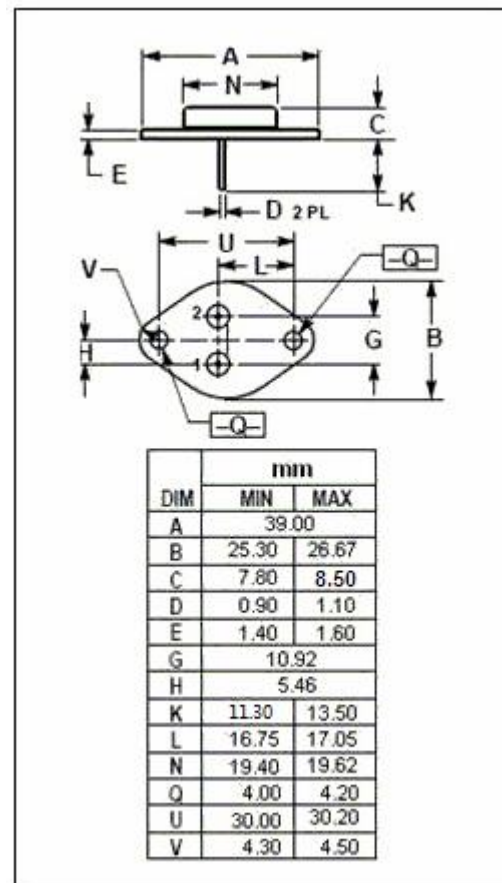
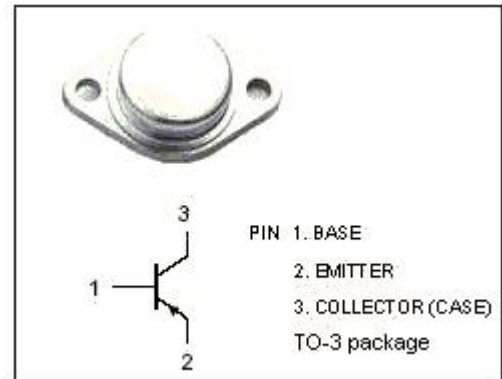
- Designed for high power audio output, disk head positioners and other linear applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-250	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-16	A
I_B	Base Current	-5	A
P_D	Total Power Dissipation @ $T_C = 25^\circ C$	250	W
T_j	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature	-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.7	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -50mA ; I _B = 0	-250		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -8A; I _B = -0.8A		-1.4	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -16A; I _B = -3.2A		-4.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C =8A ; V _{CE} = 5V		-2.2	V
I _{CEO}	Collector Cutoff Current	V _{CE} = -200V; V _{BE(off)} = 0		-0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0		-0.1	mA
h _{FE-2}	DC Current Gain	I _C = -8A ; V _{CE} = -5V	25	75	
h _{FE-3}	DC Current Gain	I _C = -16A ; V _{CE} = -5V	8		
I _{s/b}	Second Breakdown Collector Current with Base Forward Biased	V _{CE} = -50Vdc, t= 1 s, Nonrepetitive	-5		A
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = -10V; f _{test} = -1.0MHz	300		pF
f _T	Current-Gain—Bandwidth Product	I _C = -1A ; V _{CE} = -10V; f _{test} = -1.0MHz	4		MHz

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