

isc Silicon NPN Power Transistor
MJL21194
DESCRIPTION

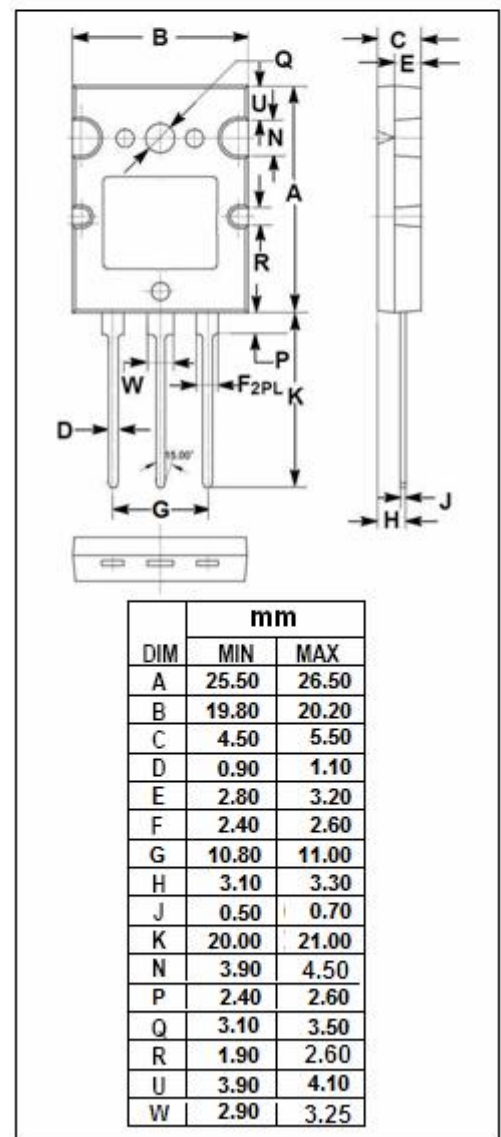
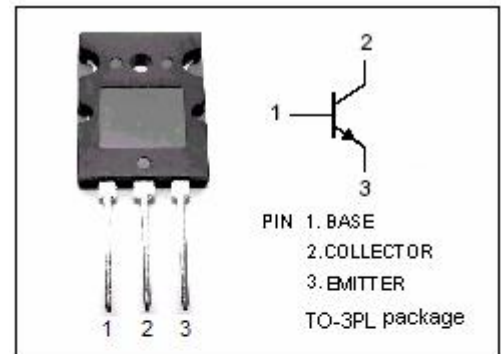
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 250V(\text{Min})$
High DC Current Gain – $h_{FE} = 25 \text{ Min @ } I_C = 8 \text{ Adc}$
- Complement to Type MJL21193
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

Perforated Emitter technology
high power audio output, disk head positioners
linear applications

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

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-Continuous	5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	200	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**MJL21194****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 50mA; I _B = 0	250			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 8.0A; 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; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 8A; V _{CE} = 5V	25		75	
h _{FE-2}	DC Current Gain	I _C = 16A; V _{CE} = 5V	8			
C _{OB}	Output Capacitance	I _E =0; V _{CB} = 10V; f= 1.0MHz			500	pF
f _T	Current-Gain—Bandwidth Product	I _C =1A ; V _{CE} = 10V	4			MHz
I _{S/b}	Second Breakdown Collector Current with Base Forward Biased	V _{CE} = 50V,t= 1.0s	4			A
		V _{CE} = 80V,t= 1.0s	2.25			A

isc Silicon NPN Power Transistor**MJL21194****NOTICE:**

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