

isc Silicon NPN Power Transistor

MJL21194G

DESCRIPTION

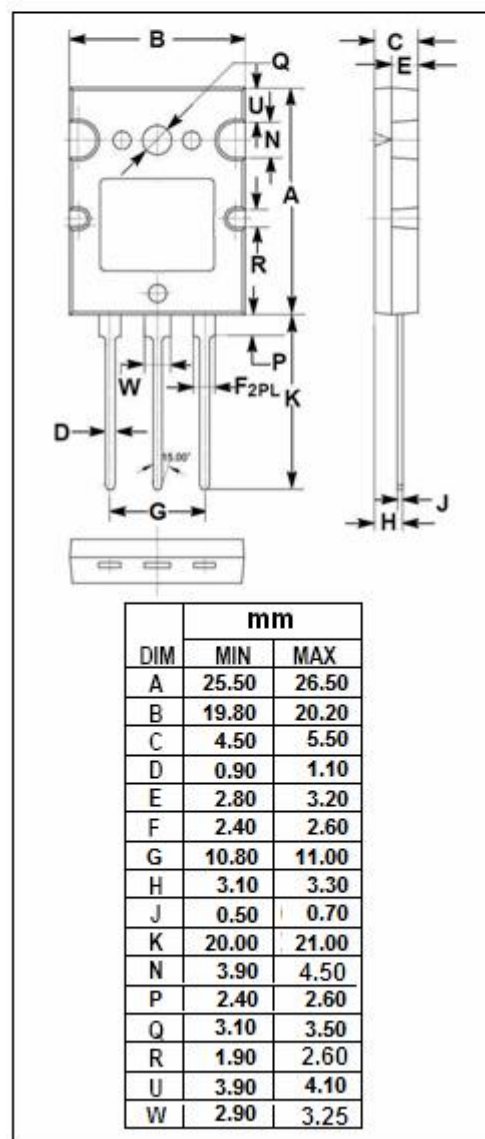
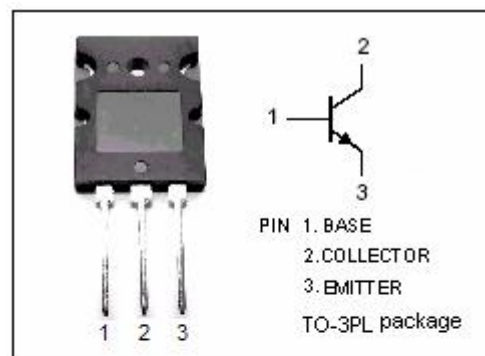
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 250V(\text{Min})$
High DC Current Gain – $h_{FE} = 25 \text{ Min @ } I_C = 8 \text{ Adc}$
- Complement to Type MJL21193

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	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS
 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=50\text{mA}; I_B=0$	250			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=8.0\text{A}; I_B=0.8\text{A}$			1.4	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=-16\text{A}; I_B=-3.2\text{A}$			4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=8\text{A}; V_{CE}=5\text{V}$			2.2	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=200\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			100	μA
h_{FE-1}	DC Current Gain	$I_C=8\text{A}; V_{CE}=5\text{V}$	25		75	
h_{FE-2}	DC Current Gain	$I_C=16\text{A}; V_{CE}=5\text{V}$	8			
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$			500	pF
f_T	Current-Gain—Bandwidth Product	$I_C=1\text{A}; V_{CE}=10\text{V}$	4			MHz
$I_{S/b}$	Second Breakdown Collector Current with Base Forward Biased	$V_{CE}=50\text{V}, t=1.0\text{s}$	4			A
		$V_{CE}=80\text{V}, t=1.0\text{s}$	2.25			A