

**isc Silicon PNP Power Transistor**
**MJL21193**
**DESCRIPTION**

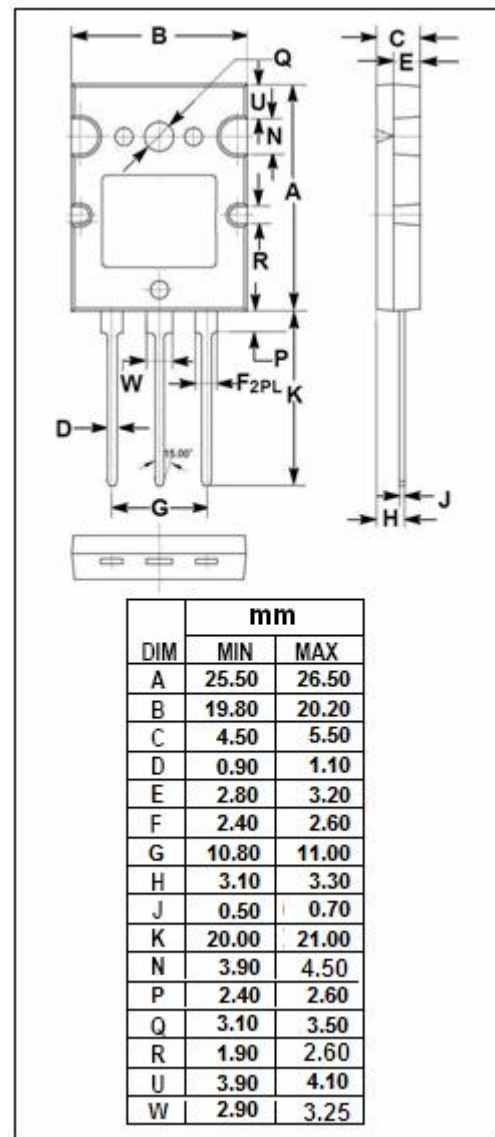
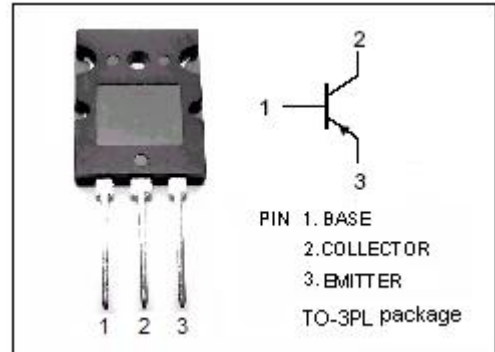
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -250V(\text{Min})$   
High DC Current Gain –  $h_{FE} = 25 \text{ Min @ } I_C = 8 \text{ Adc}$
- Complement to Type MJL21194
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**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	$^\circ\text{C}$



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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
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -8.0\text{A}; I_B = -0.8\text{A}$			-1.4	V
$V_{CE(sat)}$	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	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-100	$\mu\text{A}$
$h_{FE-1}$	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

**isc Silicon PNP Power Transistor****MJL21193****NOTICE:**

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