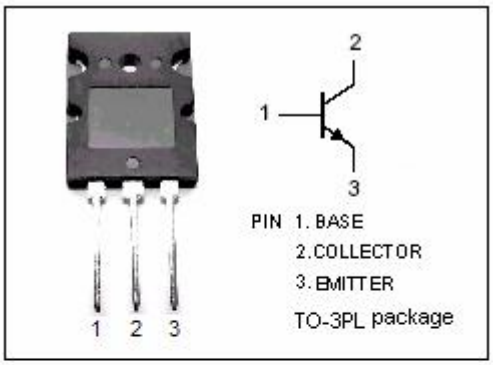
isc Silicon NPN Power Transistor MJL21194

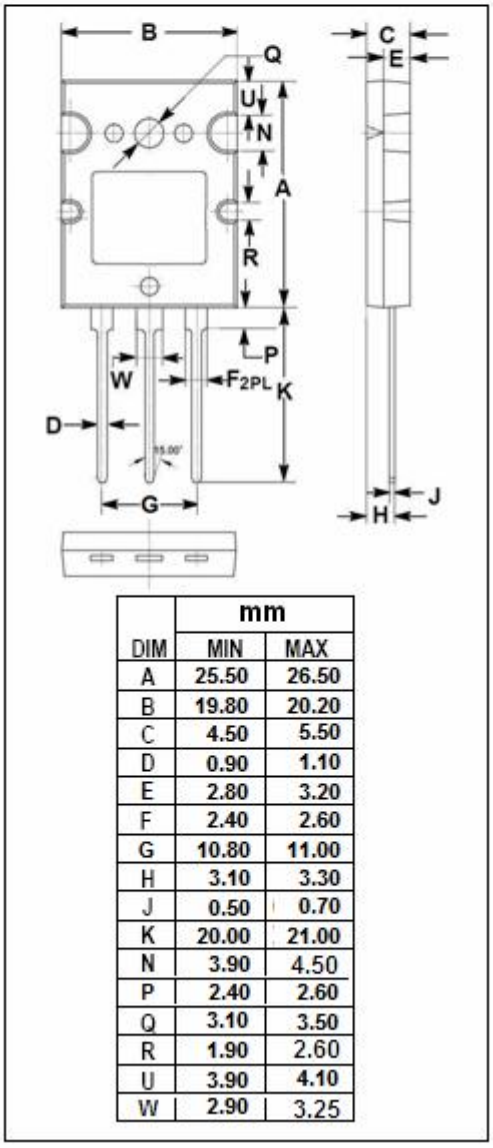


DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
  : V(BR)CEO= 250V(Min)
  High DC Current Gain – hFE = 25 Min @ IC = 8 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



DIM	mm MIN	MAX
A	25.50	26.50
B	19.80	20.20
C	4.50	5.50
D	0.90	1.10
E	2.80	3.20
F	2.40	2.60
G	10.80	11.00
H	3.10	3.30
J	0.50	0.70
K	20.00	21.00
N	3.90	4.50
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.60
U	3.90	4.10
W	2.90	3.25

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

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℃	200	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			100	μA
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

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