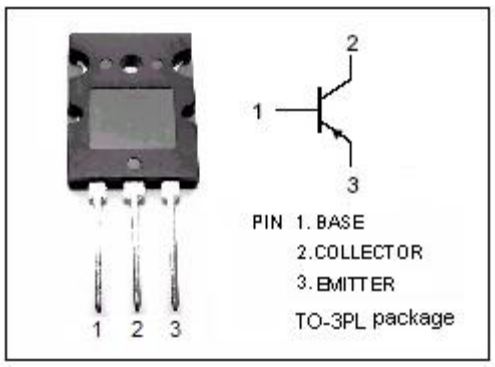
isc Silicon PNP Power Transistor — MJL1302A



DESCRIPTION

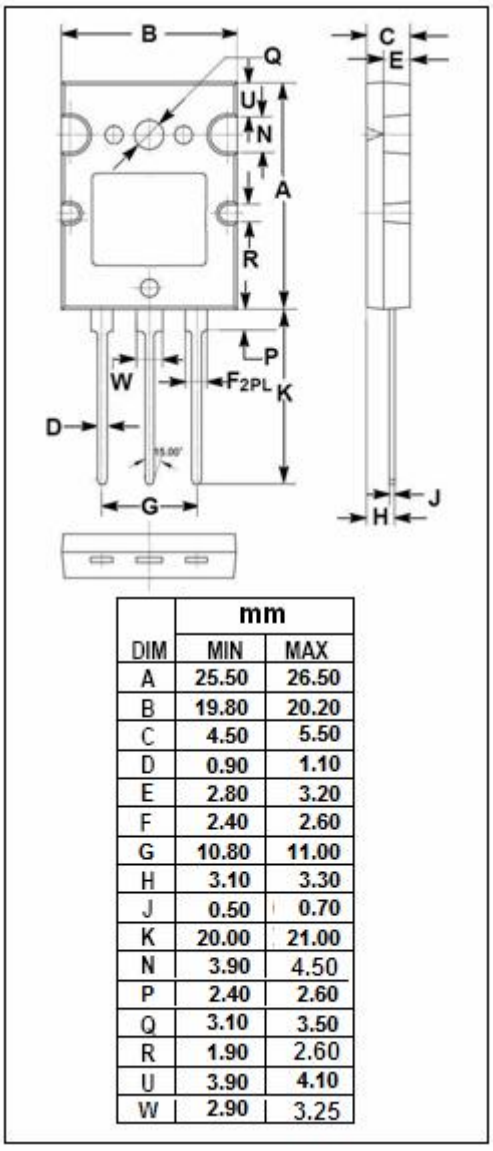
- Low Harmonic Distortion
- High Safe Operation Area — 1 A/100 V @ 1 sec
- High f_T — 30 MHz (TYP)
- Complement to Type MJL3281A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	7	V
V_{CEX}	Collector-Emitter Voltage-1.5V	200	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Pulse	25	A
P_C	Collector Power Dissipation @ T_C=25℃	200	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	200			V
$V_{(BR)EBO}$	Emitter-Base Voltage	I_E = 100 uA, IC = 0	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10A; I_B=1A			3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 200V; I_E= 0			50	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			5	μA
h_{FE-1}	DC Current Gain	I_C = 100 mA, V_{CE} = 5 V	60		175	
h_{FE-2}	DC Current Gain	I_C = 1 A, V_{CE} = 5 V	60		175	
h_{FE-3}	DC Current Gain	I_C = 3 A, V_{CE} = 5 V	60		175	
h_{FE-4}	DC Current Gain	I_C = 5 A, V_{CE} = 5 V	60		175	
h_{FE-5}	DC Current Gain	I_C = 7 A, V_{CE} = 5 V	60		175	
h_{FE-6}	DC Current Gain	I_C = 8 A, V_{CE} = 5 V	45			
h_{FE-7}	DC Current Gain	I_C = 15 A, V_{CE} = 5 V	12			
$I_{S/b}$	Second Breakdown Collector with Base Forward Biased	VCE = 50 Vdc, t =1s VCE=100Vdc,t=1s	4 1			A
f_T	Current–Gain — Bandwidth Product	IC=1Adc,VCE=5Vdc, ftest=1 MHz		30		MHz
Cob	Output Capacitance	V_{CB}=10Vdc, I_E= 0, ftest = 1 MHz		600		pF

(1) Pulse Test: Pulse Width = 300 μs, Duty Cycle ≤ 2%

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