

isc Silicon NPN Power Transistor

MJL3281A

DESCRIPTION

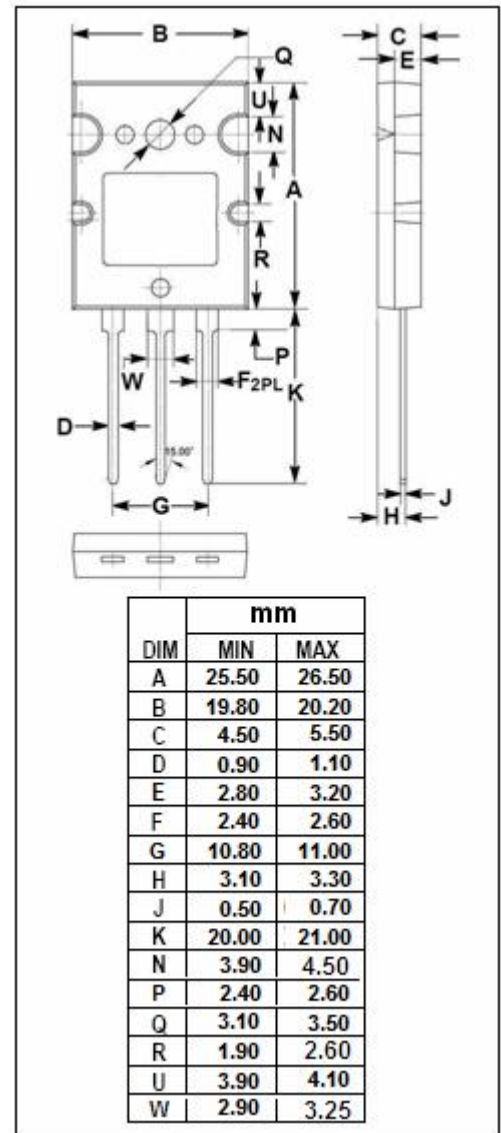
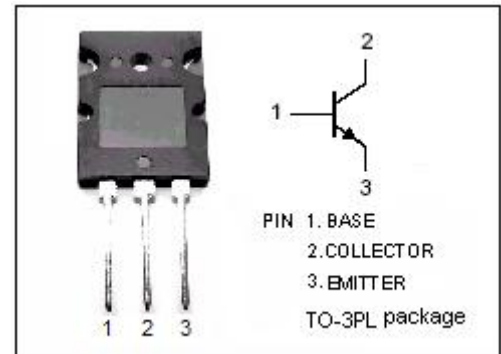
- Low Harmonic Distortion
- High Safe Operation Area — 1 A/100 V @ 1 sec
- High f_T — 30 MHz (TYP)
- Complement to Type MJL1302A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

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

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 @ $T_C=25^{\circ}\text{C}$	200	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 50\text{mA}$; $I_B = 0$	200			V
$V_{(BR)EBO}$	Emitter-Base Voltage	$I_E = 100\text{ }\mu\text{A}$, $I_C = 0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 10\text{A}$; $I_B = 1\text{A}$			3.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 200\text{V}$; $I_E = 0$			50	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}$; $I_C = 0$			5	μA
h_{FE-1}	DC Current Gain	$I_C = 100\text{ mA}$, $V_{CE} = 5\text{ V}$	60		175	
h_{FE-2}	DC Current Gain	$I_C = 1\text{ A}$, $V_{CE} = 5\text{ V}$	60		175	
h_{FE-3}	DC Current Gain	$I_C = 3\text{ A}$, $V_{CE} = 5\text{ V}$	60		175	
h_{FE-4}	DC Current Gain	$I_C = 5\text{ A}$, $V_{CE} = 5\text{ V}$	60		175	
h_{FE-5}	DC Current Gain	$I_C = 7\text{ A}$, $V_{CE} = 5\text{ V}$	60		175	
h_{FE-6}	DC Current Gain	$I_C = 8\text{ A}$, $V_{CE} = 5\text{ V}$	45			
h_{FE-7}	DC Current Gain	$I_C = 15\text{ A}$, $V_{CE} = 5\text{ V}$	12			

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