

**isc Silicon NPN Power Transistor**
**MJL4281A**
**DESCRIPTION**

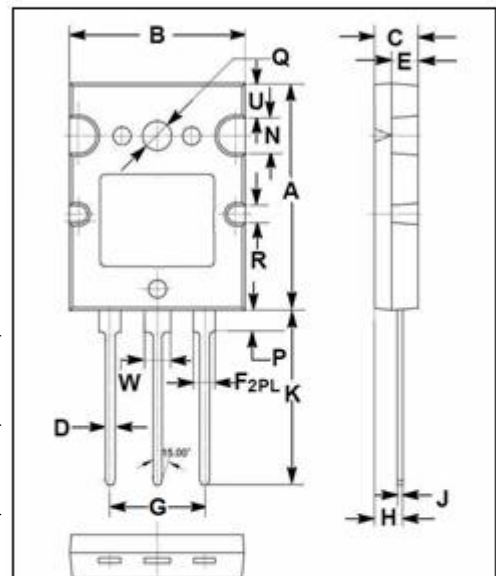
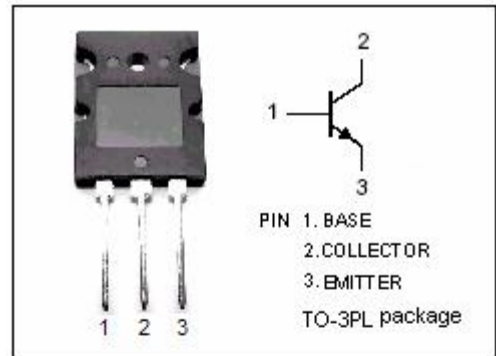
- High Collector-Emitter Breakdown Voltage  
:  $V_{(BR)CEO} = 350V(\text{Min})$
- High DC Current Gain  
:  $h_{FE} = 25 \text{ Min @ } I_C = 8 \text{ A dc}$
- Complement to Type MJL4302A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Perforated Emitter technology
- High power audio output, disk head positioners linear applications

**ABSOLUTE MAXIMUM RATINGS(Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	350	V
$V_{CEO}$	Collector-Emitter Voltage	350	V
$V_{EBO}$	Emitter-Base Voltage	5.0	V
$I_C$	Collector Current-Continuous	15	A
$I_B$	Base Current-Continuous	1.5	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	230	W
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature Range	-55~150	°C



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

## isc Silicon NPN Power Transistor

MJL4281A

## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 50mA; I <sub>B</sub> = 0	350		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 8.0A; I <sub>B</sub> = 0.8A		1.0	V
V <sub>BE(sat)</sub>	Emitter-Base Saturation Voltage	I <sub>C</sub> = 8.0A; I <sub>B</sub> = 0.8A		1.4	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 8A; V <sub>CE</sub> = 5V		1.5	V
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 200V; I <sub>E</sub> = 0		100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0		5.0	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 0.1A; V <sub>CE</sub> = 5V	80	250	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V	80	250	
h <sub>FE-3</sub>	DC Current Gain	I <sub>C</sub> = 3A; V <sub>CE</sub> = 5V	80	250	
h <sub>FE-4</sub>	DC Current Gain	I <sub>C</sub> = 5A; V <sub>CE</sub> = 5V	80	250	
h <sub>FE-5</sub>	DC Current Gain	I <sub>C</sub> = 8A; V <sub>CE</sub> = 5V	50		
h <sub>FE-6</sub>	DC Current Gain	I <sub>C</sub> = 15A; V <sub>CE</sub> = 5V	10		

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