

SPTECH Product Specification

SPTECH Silicon NPN Power Transistor

MJW3281A

DESCRIPTION

- High DC current amplifier rate
 $h_{FE}: 50-200 @ V_{CE} = 5V, I_C = 1A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

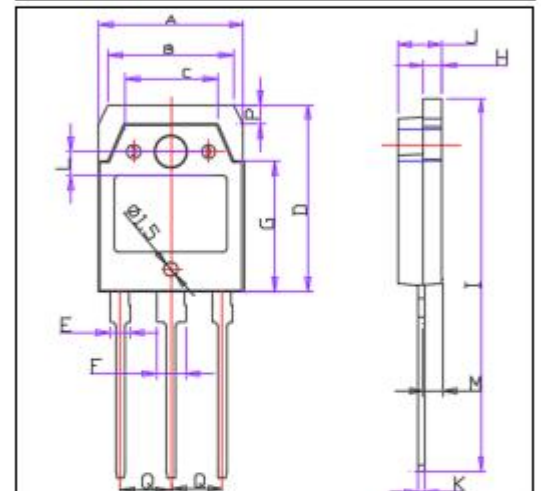
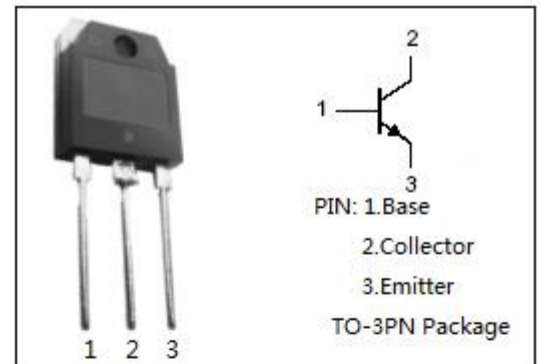
- High power audio, disk head positioners and other linear applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	230	V
V_{CEO}	Collector-Emitter Voltage	230	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_{CP}	Collector Current-Pulse	25	A
I_B	Base Current-Continuous	1.5	A
P_C	Total Power Dissipation @ $T_C = 25^\circ C$	200	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	0.63	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	15.45	15.75
B	13.45	13.75
C	9.45	9.75
D	19.80	20.20
E	2.00	2.20
F	2.95	3.25
G	13.70	14.10
H	1.40	1.60
I	18.45	18.75
J	4.70	4.90
K	0.50	0.70
L	2.20	2.60
M	1.20	1.60
P	1.80	2.20
Q	5.25	5.65

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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _c =100mA ; I _B =0	230		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _c = 10A; I _B = 1A		2	V
V _{BE(on)}	Base-Emitter Saturation Voltage	I _c = 8A; V _{CE} = 5V		2	V
I _{CB0}	Collector Cutoff Current	V _{CB} = 230V ; I _E =0		50	μA
I _{EB0}	Emitter Cutoff Current	V _{EB} = 5V; I _C =0		5	μA
h _{FE-1}	DC Current Gain	I _c = 100mA ; V _{CE} = 5V	50	200	
h _{FE-2}	DC Current Gain	I _c = 1A ; V _{CE} = 5V	50	200	
h _{FE-3}	DC Current Gain	I _c = 8A ; V _{CE} = 5V	45		
h _{FE-4}	DC Current Gain	I _c = 15A ; V _{CE} = 5V	12		