

SPTECH Product Specification

SPTECH Silicon NPN Power Transistor

MJL4281A

DESCRIPTION

- Total Harmonic Distortion Characterized
- High DC Current Gain
- High Area of Safe Operation
- Complement to type MJL4302A

APPLICATIONS

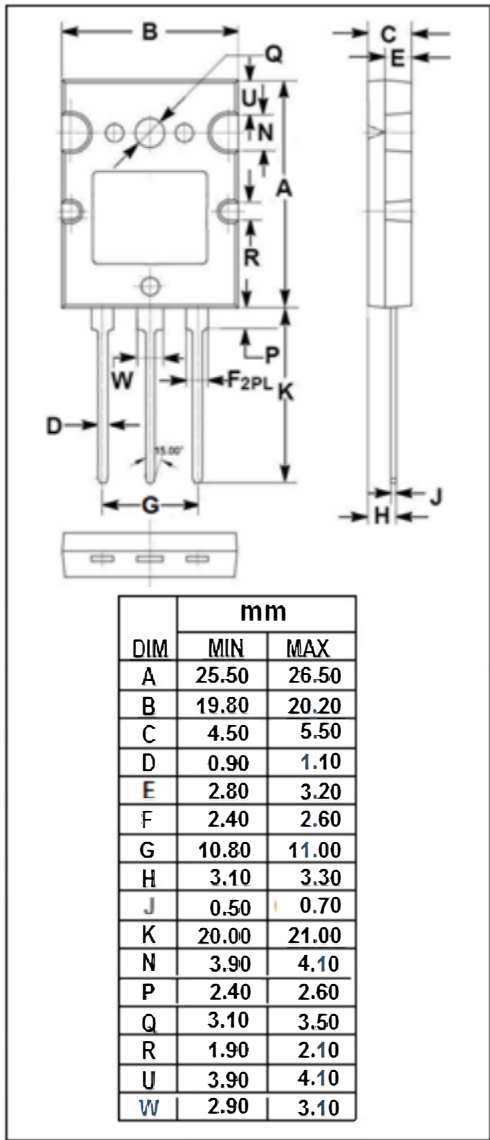
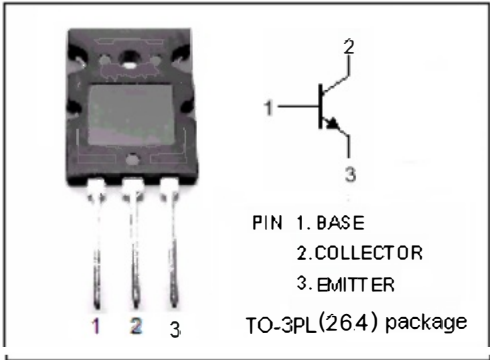
- Designed for high power audio output, disk head positioners and linear applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Emitter Voltage	350	V
V _{CEO}	Collector-Emitter Voltage	350	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current-Continuous	16	A
I _{CM}	Collector Current-Pulsed	30	A
I _B	Base Current-Continuous	1.5	A
P _D	Total Power Dissipation (T _C =25℃)	230	W
T _J	Junction Temperature	150	℃
T _{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	ThermalResistance Junction To Case	0.7	℃/W



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C =100mA; I _B =0	350			V
V _{CE(sat)} -1	Collector-Emitter Saturation Voltage	I _C =8A; I _B =0.8A			1.0	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C =16A; I _B =3.2A			4	V
V _{BE(on)}	Base-Emitter On Voltage	I _C =8A; V _{CE} =5V			1.4	V
I _{CEO}	Collector Cutoff Current	V _{CE} =200V, I _B =0			0.1	mA
I _{CEX}	Collector Cutoff Current	V _{CE} = 350V; V _{BE(off)} = 1.5V			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} =5V; I _C =0			1	μ A
h _{FE-1}	DC Current Gain	I _C =8A; V _{CE} =5V	25		160	
h _{FE-2}	DC Current Gain	I _C =16A; V _{CE} =5V	8			
C _{OB}	Collector Capacitance	I _E = 0; f=1MHz; V _{CB} =10V			500	pF
f _T	Current Gain-Bandwidth Product	I _C =1A; V _{CE} =10V; f _{test} =1MHz	4			MHz