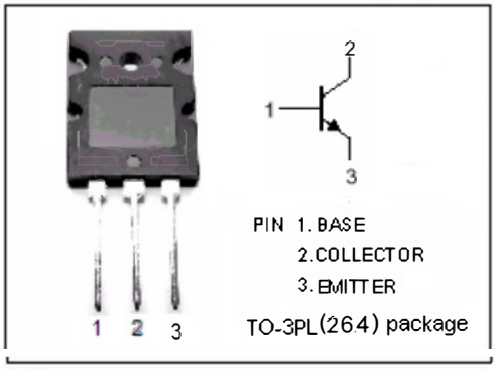
SPTECH Silicon NPN Power Transistor

MJL4281A

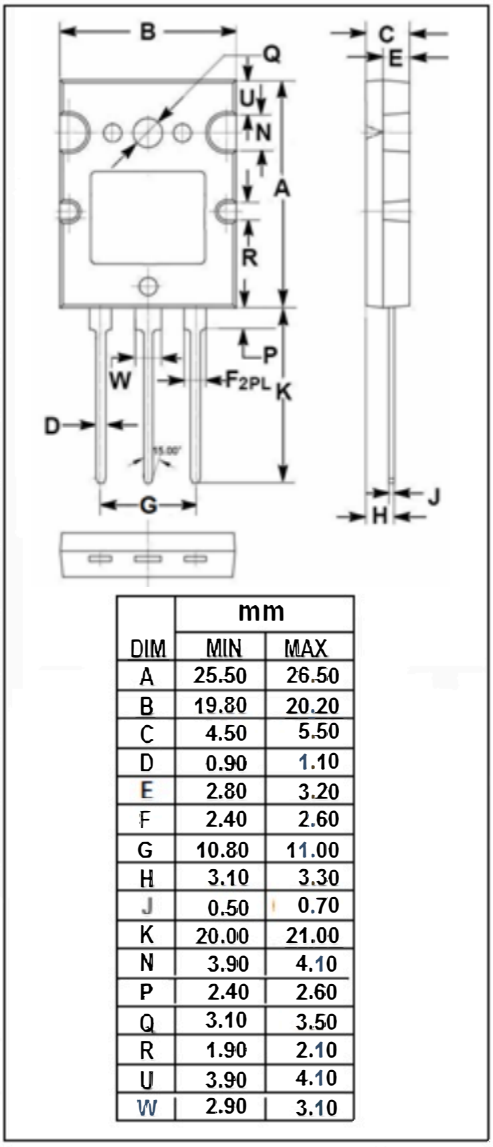


DESCRIPTION

- 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.



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	4.10
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.10
U	3.90	4.10
W	2.90	3.10

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
$R_{th\ j\text{-}C}$	ThermalResistance Junction To Case	0.7	℃/W

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

Tj=25℃ 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	μA
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