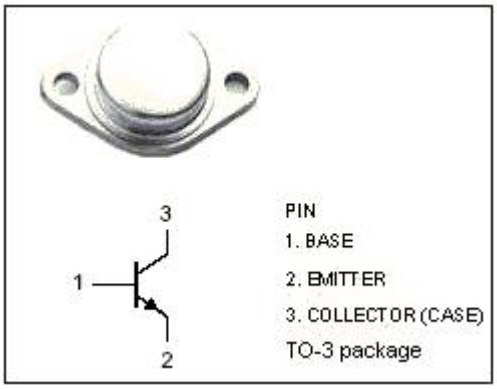
SPTECH Silicon NPN Power Transistor

DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-
  : h_{FE}= 25(Min.)@I_C = 5A
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max)@ I_C= 5A
- Complement to the PNP MJ15027



APPLICATIONS

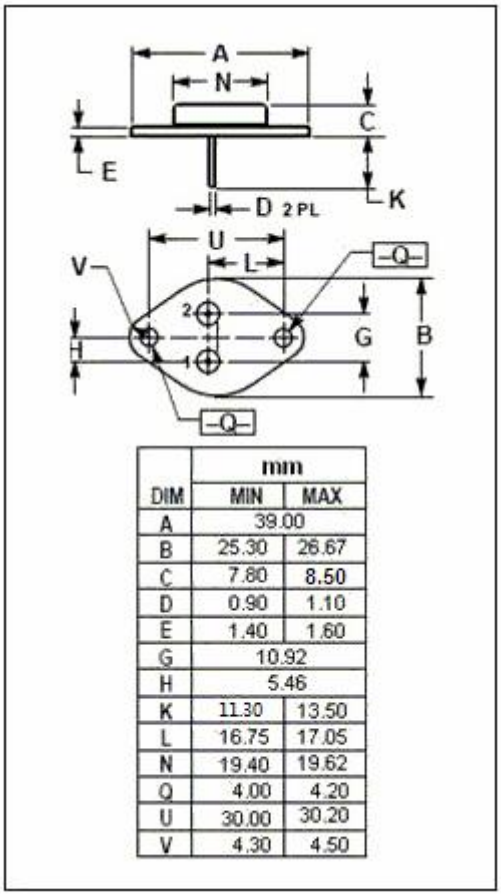
- Designed for high power audio, disk head positioners , and other linear applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEO}	Collector-Emitter Voltage	200	V
V_{CBO}	Collector-Base Voltage	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	16	A
I_{CM}	Collector Current-Peak	32	A
I_B	Base Current-Continuous	7	A
P_D	Total Power Dissipation@T_C=25℃	250	W
T_j	Junction Temperature	200	℃
T_{stg}	Storage Temperature	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.7	℃/W



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 30mA ;I_B= 0	200		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 16A; I_B= 4A		3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		2.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 120V; I_B= 0		1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 200V;I_E=0		1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		1.0	mA
h_{FE-1}	DC Current Gain	I_C= 5A ; V_{CE}= 5V	25	150	
h_{FE-2}	DC Current Gain	I_C= 16A ; V_{CE}= 5V	6		
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 10V; f_{test}= 1.0MHz	15		MHz
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V; f_{test}= 1.0MHz	300		pF