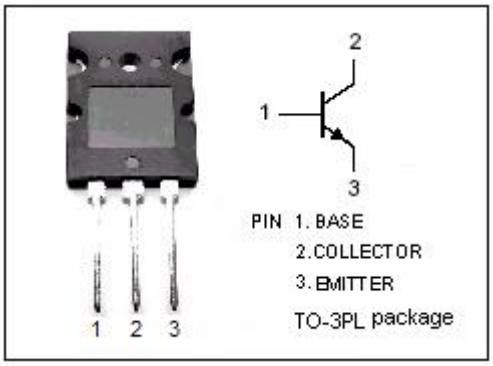
SPTECH Silicon NPN Power Transistor

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 800V(Min)
- High Switching Speed
- Wide Area of Safe Operation

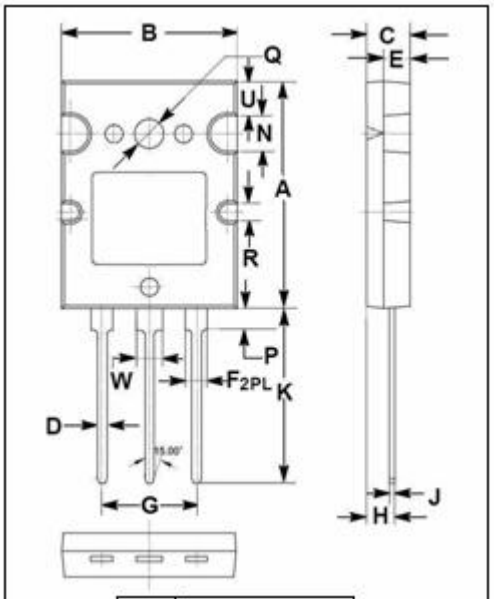


APPLICATIONS

- Designed for horizontal output applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CES}	Collector-Emitter Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Pulse	22	A
I_B	Base Current-Continuous	3.5	A
P_C	Collector Power Dissipation @ T_C=25℃	150	W
	Collector Power Dissipation @ T_a=25℃	3.5	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



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

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_B= 0	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 2.5A			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 7A; I_B= 2.5A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 750V; I_E= 0 V_{CB}= 1500V; I_E= 0			10 1.0	μA mA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 5V	5			
h_{FE-2}	DC Current Gain	I_C= 7A; V_{CE}= 5V	3		8	
f_T	Current-Gain—Bandwidth Product	I_C= 1A; V_{CE}= 10V		2		MHz
Switching times						
t_{stg}	Storage Time	I_C= 6A, I_{B1}= -I_{B2}= 1.7A; L_{leak}= 5 μH			12	μs
t_f	Fall Time				0.6	μs