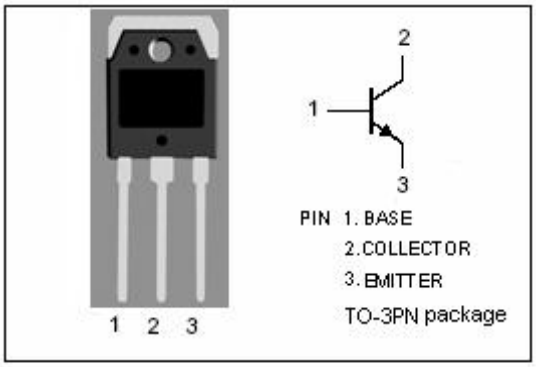
SPTECH Silicon NPN Power Transistor

DESCRIPTION

- With TO-3PN packaging
- Reliable performance at higher powers
- Accurate reproduction of Input signal
- Greater dynamic range
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

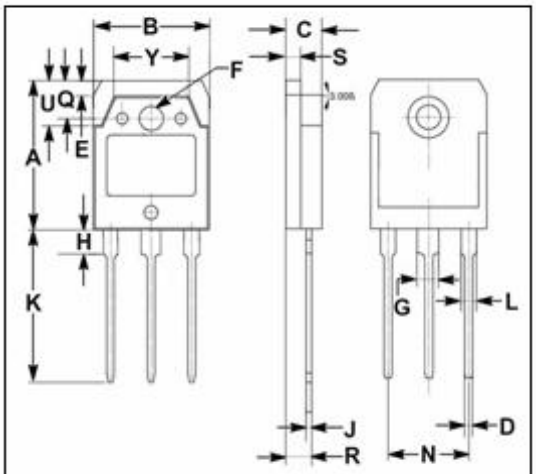
- Switching regulators
- High frequency inverters
- General purpose power amplifiers

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{CEX}	Collector-Emitter Voltage V_{EB}= 5V	250	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	30	A
I_B	Base Current-Continuous	1.6	A
P_T	Total Power Dissipation @ T_C=25℃	200	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.63	℃/W



DIM	mm MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 100mA; I_B= 0	250			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 0.8A			0.6	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 8A;V_{CE}= 5V			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 250V			50	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 250V			50	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V			5	mA
h_{FE-1}	DC Current Gain	I_C= 0.1A; V_{CE}= 5V	75		150	
h_{FE-2}	DC Current Gain	I_C= 1A; V_{CE}= 5V	75		150	
h_{FE-3}	DC Current Gain	I_C= 3A; V_{CE}= 5V	75		150	
h_{FE-4}	DC Current Gain	I_C= 5A; V_{CE}= 5V	60			
h_{FE-5}	DC Current Gain	I_C= 8A; V_{CE}= 5V	45			