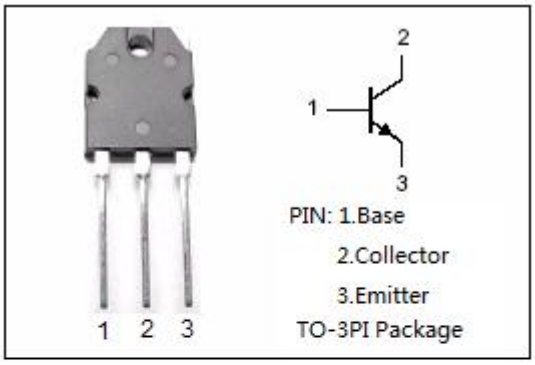
SPTECH Silicon NPN Power Transistor



DESCRIPTION

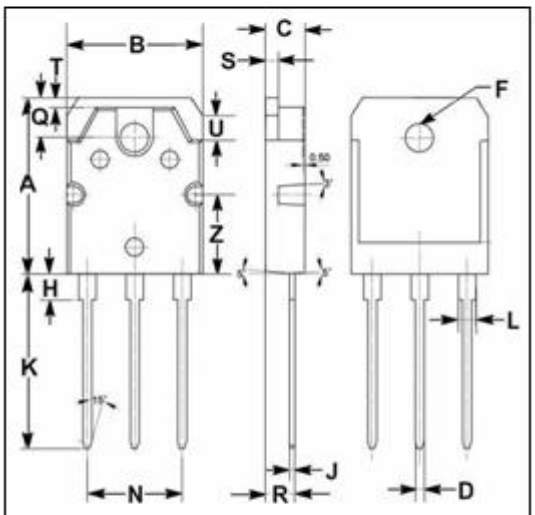
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 50V (Min)
- Low Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 0.4V (Max)@I_C= 4A
- High Collector Power Dissipation
  : P_C= 60W @T_C=25℃
- Complement to Type 2SB754

APPLICATIONS

- High current switching applications
- Power amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	7	A
I_E	Emitter Current-Continuous	7	A
P_C	Collector Power Dissipation @ T_a=25℃	2.5	W
	Collector Power Dissipation @ T_C=25℃	60	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.60	20.10
B	15.30	15.70
C	4.00	4.60
D	0.90	1.10
F	3.20	3.40
H	2.90	3.10
J	0.50	0.70
K	19.90	21.30
L	1.20	2.20
N	10.80	11.00
Q	4.40	4.60
R	3.30	3.35
S	1.40	1.60
T	1.00	1.20
U	2.10	2.30
Z	7.90	9.10

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ; I_B= 0	50			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA ; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.4A		0.2	0.4	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 4A ; V_{CE}= 1V		0.9	1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 50V ; I_E= 0			10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V ; I_C= 0			10	μA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 1V	70		240	
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 1V	30			
f_T	Current-Gain—Bandwidth Product	I_C= 1A; V_{CE}= 5V		15		MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f_{test}= 1.0MHz		250		pF

◆ **h_{FE-1} Classifications**

O	Y
70-140	120-240