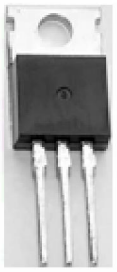
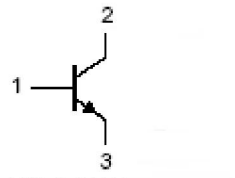
SPTECH Silicon NPN Power Transistor

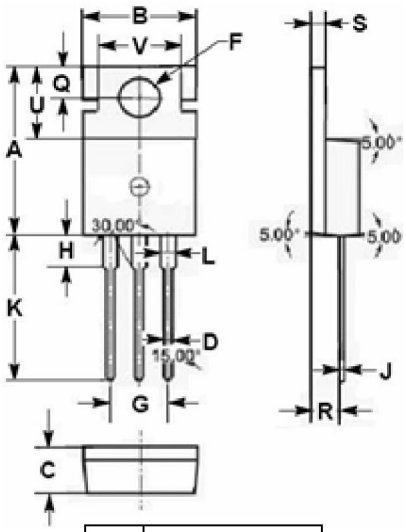




PIN 1. BASE
2. COLLECTOR
3. EMITTER
TO-220C package

DESCRIPTION

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



DIM	mm MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	850	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	1.5	A
P_C	Collector Power Dissipation @T_C=25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
BV_{EBO}	Emitter -Base Breakdown Voltage	I_E= 1mA; I_C= 0	7			V
BV_{CEO}	Collector- Emitter Breakdown Voltage	I_C= 5mA; I_B= 0	800			V
BV_{CBO}	Collector- Base Breakdown Voltage	I_C= 1mA; I_E= 0	850			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1.5A; I_B= 0.3A			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 1.5A; I_B= 0.3A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 800V; I_E= 0			10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	μA
h_{FE}	DC Current Gain	I_C= 0.2A; V_{CE}= 5V	10		40	
h_{FE}	DC Current Gain	I_C= 1A; V_{CE}= 5V	8			
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f= 1MHz		60		pF
f_T	Current-Gain—Bandwidth Product	I_E= 0.2A; V_{CE}= 10V		15		MHz

Switching Times

t_{on}	Turn-On Time	I_C=5I_{B1}=-2.5 I_{B2}=2A; V_{CC}= 400V; R_L= 200Ω			0.5	μs
t_{stg}	Storage Time				3.0	μs
t_f	Fall Time				0.3	μs