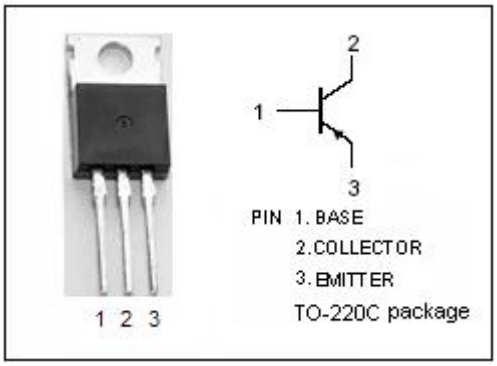
SPTECH Silicon PNP Power Transistor

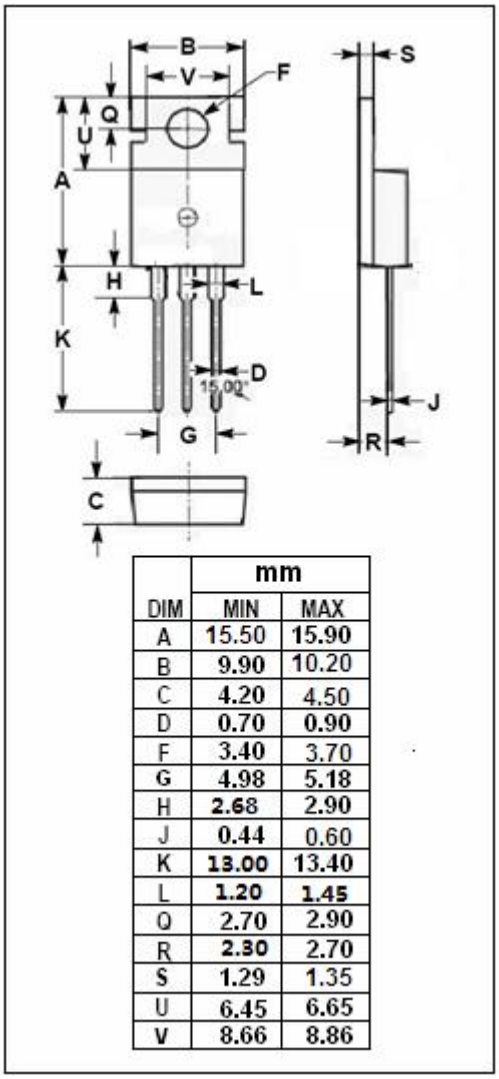
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$ = -60V(Min)
- High DC Current Gain-
  : h_{FE}= 20-100@I_C= -4A
- Complement to Type MJE3055T



APPLICATIONS

- Designed for use in general-purpose amplifier and switching applications.



DIM	mm MIN	MAX
A	15.50	15.90
B	9.90	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	13.00	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
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	-70	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-10	A
I_B	Base Current-Continuous	-6	A
P_C	Collector Power Dissipation @ T_C=25℃	75	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.67	℃/W

SPTECH Silicon PNP 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= -50mA; I_B= 0	-60			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= -4A; I_B= -0.4A			-1.1	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -10A; I_B= -3.3A			-8.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -4A ; V_{CE}= -4V			-1.8	V
I_{CEO}	Collector Cutoff Current	V_{CE}= -30V; I_B= 0			-0.7	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= -70V; I_E= 0 V_{CB}= -70V; I_E= 0;T_C= 150℃			-1.0 -10	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-5.0	mA
h_{FE-1}	DC Current Gain	I_C= -4A ; V_{CE}= -4V	20		100	
h_{FE-2}	DC Current Gain	I_C= -10A ; V_{CE}= -4V	5			
f_T	Current Gain-Bandwidth Product	I_C= -0.5A; V_{CE}= -10V; f= 500kHz	2.0			MHz