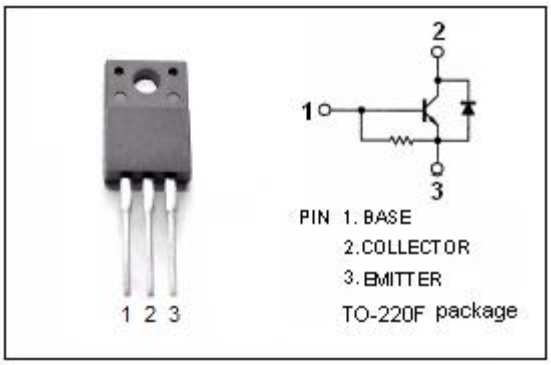
SPTECH Silicon NPN Power Transistor

DESCRIPTION

- High Voltage
- High Speed Switching
- Built-in Damper Diode



APPLICATIONS

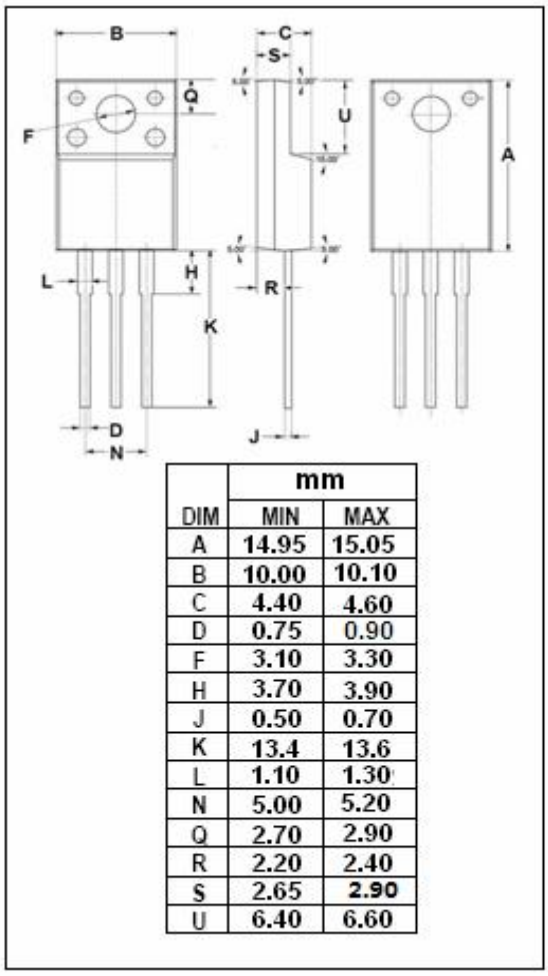
- Designed for use in horizontal deflection circuits of color TV receivers.

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Base Voltage V_{BE}= 0	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	7.5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	4	A
I_{BM}	Base Current-peak	6	A
P_C	Collector Power Dissipation @T_C=25℃	35	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	3.6	℃/W



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

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= 50mA; I_B= 0	700			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 600mA; I_C= 0	7.5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4.5A; I_B= 1.1A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4.5A; I_B= 1.7A			1.3	V
I_{CES}	Collector Cutoff Current	V_{CE}= V_{CES}; V_{BE}= 0 V_{CE}= V_{CES}; V_{BE}= 0;T_C=125℃			1.0 2.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7.5V; I_C= 0	140		390	
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 5V		13		
h_{FE-2}	DC Current Gain	I_C= 4.5A ; V_{CE}= 1V	4		7	
V_{ECF}	C-E Diode Forward Voltage	I_F= 4.5A			2.0	V