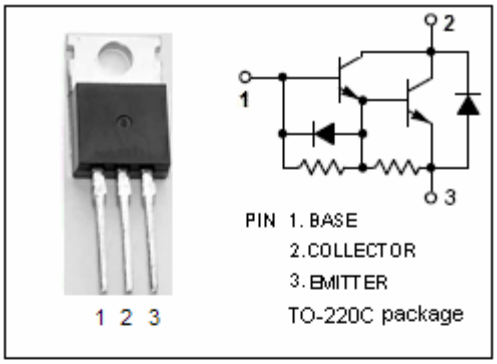
SPTECH Silicon NPN Darlington Power Transistor

DESCRIPTION

- High Voltage: V_{CEV}= 400V(Min)
- Low Saturation Voltage-
  : $V_{CE(sat)}$= 1.5V(Max)@ I_C= 5A



APPLICATIONS

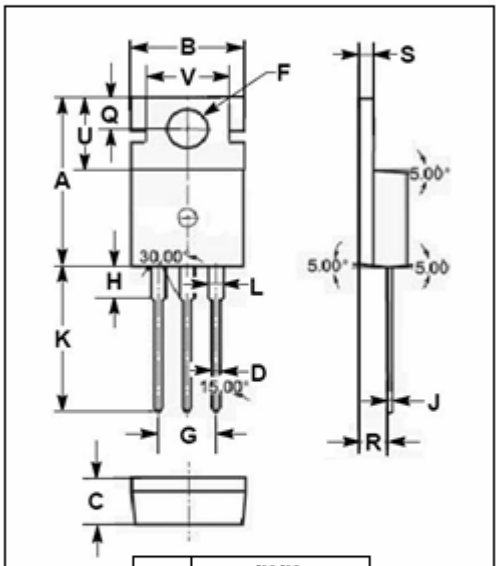
- Designed for use in horizontal deflection circuits in TV's and CRT's.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEV}	Collector-Emitter Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current	2	A
P_C	Collector Power Dissipation @ T_C=25℃	60	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	2.08	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	70	℃/W



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

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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	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 50mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 50mA			2.4	V
I_{CES}	Collector Cutoff Current	V_{CE}= RatedV_{CBO}; V_{BE}= 0			0.1	mA
I_{CEV}	Collector Cutoff Current	V_{CE}= RatedV_{CEV}; $V_{BE(off)}$= 6V			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			3.0	mA
V_{ECF}	C-E Diode Forward Voltage	I_F= 4A			2.0	V

Switching Times

t_{on}	Turn-On Time	I_C= 5A; I_{B1}= 50mA;I_{B2}= -0.5A V_{CC}= 100V		0.35		μ s
t_s	Storage Time			0.55		μ s
t_f	Fall Time			0.20		μ s