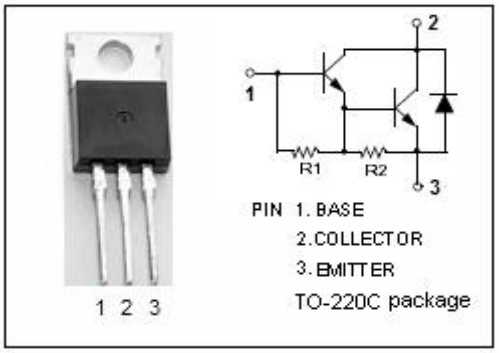
SPTECH Silicon NPN Darlington Power Transistor 2SD799

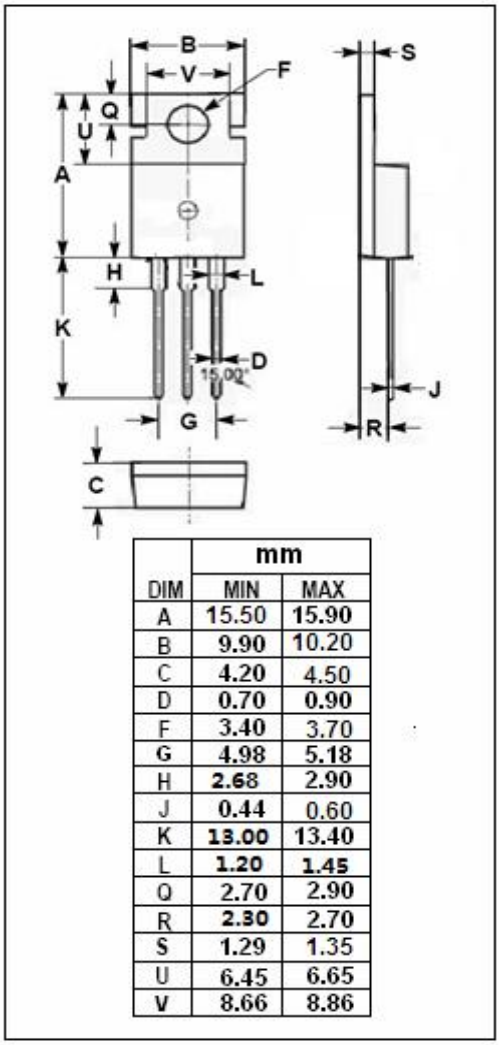
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 400V (Min.)
- High DC Current Gain
  : h_{FE}= 600(Min.) @I_C= 2A



APPLICATIONS

- Igniter applications.
- High voltage switching applications.



DIM	mm MIN	mm 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	600	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	6	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ T_C=25℃	30	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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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	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 40mA			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 40mA			2.5	V
V_{ECF}	C-E Diode Forward Voltage	I_F= 4A			3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 600V; I_E= 0			0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			3.0	mA
h_{FE-1}	DC Current Gain	I_C= 2A ; V_{CE}= 2V	600			
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 2V	100			
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 50V;f= 1.0MHz		35		pF

Switching times

t_{on}	Turn-on Time	I_{B1}= I_{B2}= 40mA; R_L= 25Ω ; V_{CC}= 100V; P_W= 20μs, Duty Cycle≤1%		1		μs
t_{stg}	Storage Time			8		μs
t_f	Fall Time			5		μs