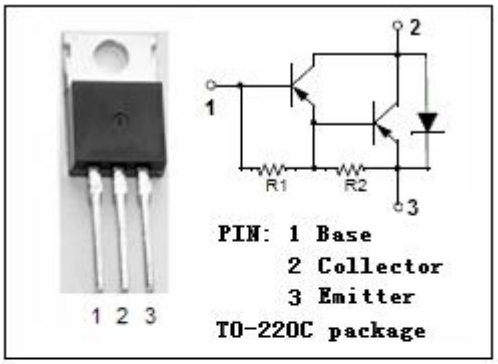
SPTECH Silicon PNP Darlington Power Transistor 2SB601

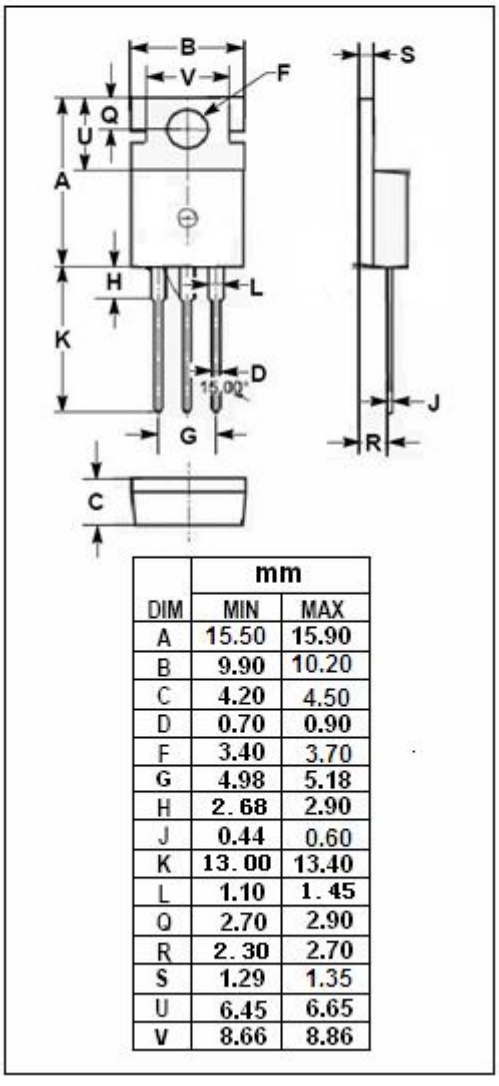
DESCRIPTION

- High DC Current Gain-
  : h_{FE} = 2000(Min)@ I_C= -3A
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = -100V(Min)
- Low Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$ = -1.5V(Max)@ I_C= -3A



APPLICATIONS

- Designed for use in low-frequency power amplifiers and low-speed switching applications.
- Ideal for use in direct drive from IC output for magnet drivers such as terminal equipment or cash registers.



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	1.10	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 (Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-5	A
I_{CM}	Collector Current-Peak	-8	A
I_B	Base Current-DC	-0.5	A
P_C	Collector Power Dissipation T_C=25℃	30	W
	Collector Power Dissipation T_a=25℃	1.5	
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
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -3A ,I_B= -3mA			-1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -3A ,I_B= -3mA			-2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -100V, I_E= 0			-10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-3	mA
h_{FE-1}	DC Current Gain	I_C= -3A ; V_{CE}= -2V	2000		15000	
h_{FE-2}	DC Current Gain	I_C= -5A ; V_{CE}= -2V	500			
Switching times						
t_{on}	Turn-on Time	R_L= 17Ω , $V_{CC}\approx$ -50V I_C= -3A; I_{B1}= -I_{B2}= -3mA		0.5		μs
t_{stg}	Storage Time			1.0		μs
t_f	Fall Time			1.0		μs

◆ **h_{FE-1} Classifications**

M	L	K
2000-5000	3000-7000	5000-15000