

**Silicon PNP Power Transistor**

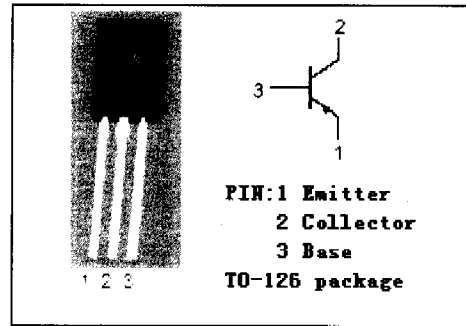
**2SB1151**

**DESCRIPTION**

- Large Collector Current
- Low Collector Saturation Voltage
- High Power Dissipation
- Complement to 2SD1691

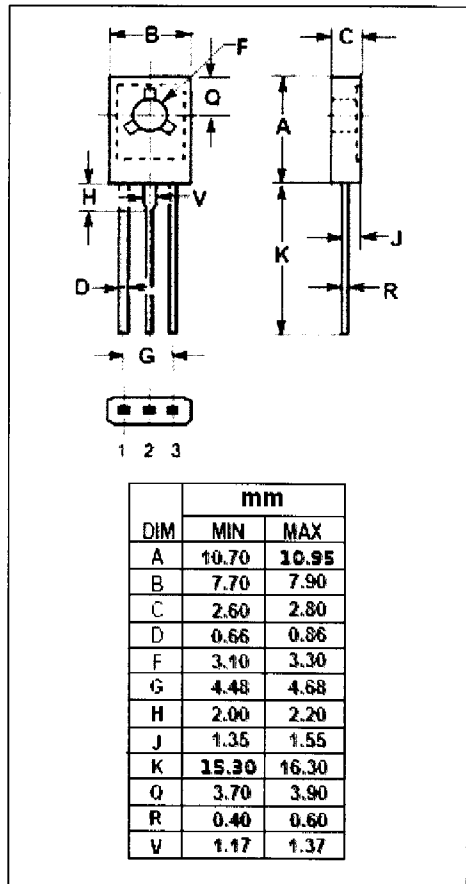
**APPLICATIONS**

- Designed for use in DC-DC converter, or driver of solenoid or motor.



**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	-60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-60	V
V <sub>EBO</sub>	Emitter-Base Voltage	-7	V
I <sub>C</sub>	Collector Current-Continuous	-5	A
I <sub>CP</sub>	Collector Current-Pulse	-8	A
I <sub>B</sub>	Base Current-Continuous	-1	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	20	W
	Collector Power Dissipation @ T <sub>a</sub> =25°C	1.3	
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



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## ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2A; I_B = -0.2A$			-0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -2A; I_B = -0.2A$			-1.2	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -50V; I_E = 0$			-10	$\mu A$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -7V; I_C = 0$			-10	$\mu A$
$h_{FE-1}$	DC Current Gain	$I_C = -0.1A; V_{CE} = -1V$	60			
$h_{FE-2}$	DC Current Gain	$I_C = -2A; V_{CE} = -1V$	100		400	
$h_{FE-3}$	DC Current Gain	$I_C = -5A; V_{CE} = -2V$	50			

### Switching Times

$t_{on}$	Turn-on Time	$I_C = -2A, I_{B1} = -I_{B2} = -0.2A;$ $R_L = 5\Omega; V_{CC} = -10V$			1.0	$\mu s$
$t_{stg}$	Storage Time				2.5	$\mu s$
$t_f$	Fall Time				1.0	$\mu s$

### ◆ $h_{FE-2}$ Classifications

M	L	K
100-200	160-320	200-400