

isc Silicon PNP Power Transistor
KSB1151
DESCRIPTION

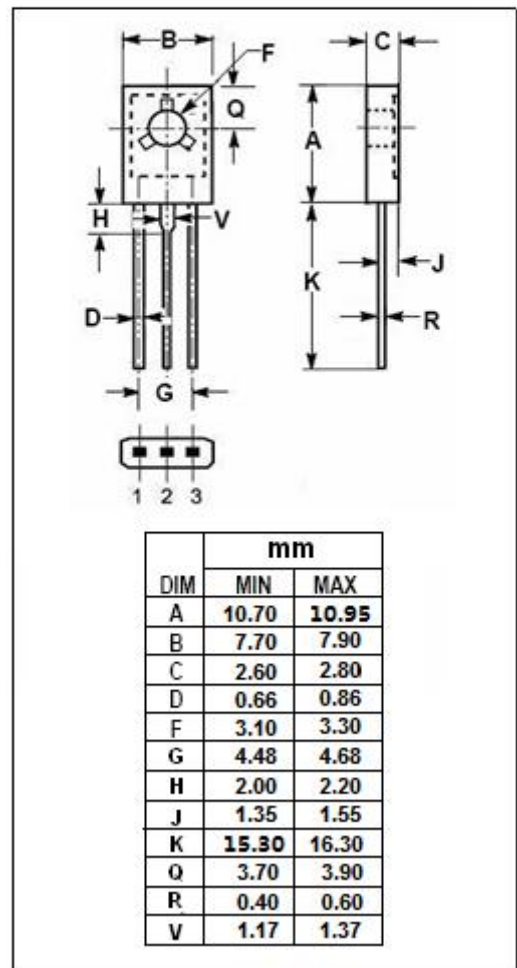
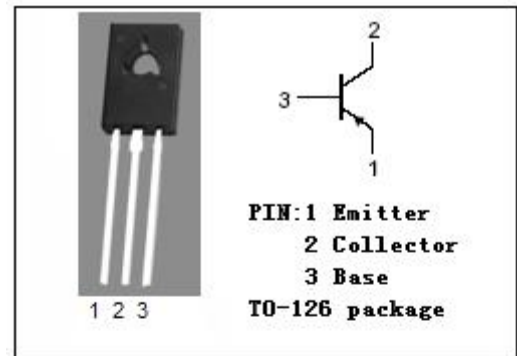
- Large Collector Current
- Low Collector Saturation Voltage
- High Power Dissipation
- Complement to KSD1691
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-5	A
I_{CP}	Collector Current-Pulse	-8	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	20	W
	Collector Power Dissipation @ $T_a=25^{\circ}\text{C}$	1.3	
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



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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	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -7V; I_C = 0$			-10	μA
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	μs
t_{stg}	Storage Time				2.5	μs
t_f	Fall Time				1.0	μs

◆ h_{FE-2} Classifications

O	Y	G
100-200	160-320	200-400

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