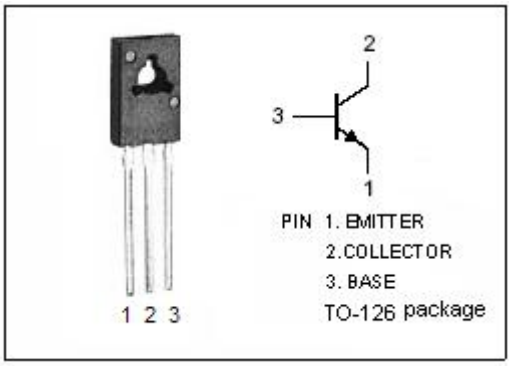
isc Silicon NPN Power Transistor — HLB123D

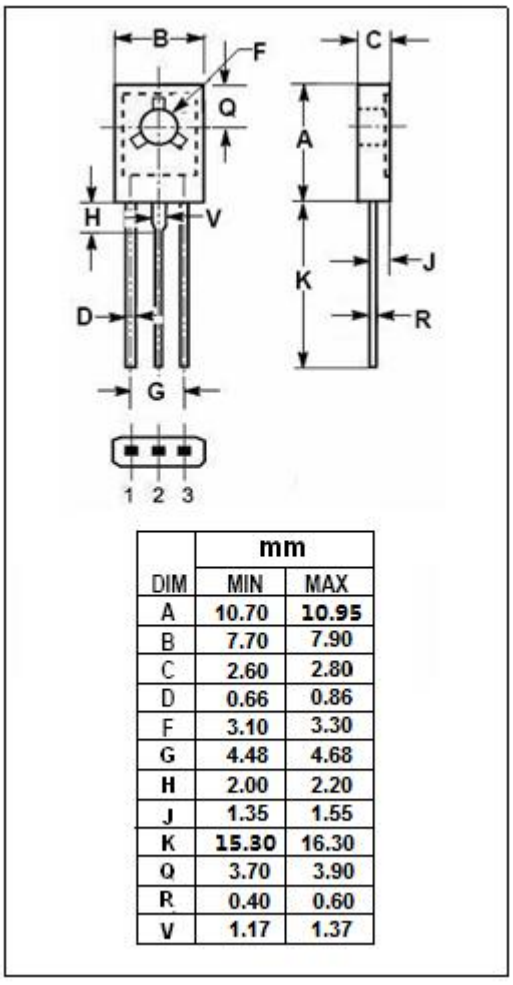
DESCRIPTION

- High voltage
- High speed switching
- Low Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- The HLB123D is designed for high voltage,high speed switching inductive circuits and amplifier applications



DIM	mm MIN	mm MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	600	V
V_{CER}	Collector-Emitter Voltage R_{BE}=150 Ω	600	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	1	A
P_C	Collector Power Dissipation @ Tc=25℃	30	W
T_J	Junction Temperature	-55~150	℃
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
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C=100mA; I_B= 10mA			0.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C=300mA; I_B= 30mA			0.9	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C=100mA; I_B= 10mA			1.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C=300mA; I_B= 30mA			1.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 600V ; I_E= 0			10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 9V; I_C= 0			10	μA
h_{FE-1}	DC Current Gain	I_C= 300mA ; V_{CE}= 5V	10		50	
h_{FE-2}	DC Current Gain	I_C= 500mA ; V_{CE}= 5V	10			
h_{FE-3}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	6			

◆ **h_{FE-1} Classifications**

B1	B2	B3	B4	B5	B6	B7	B8
10-17	12-22	18-27	23-32	28-37	33-42	38-47	43-50