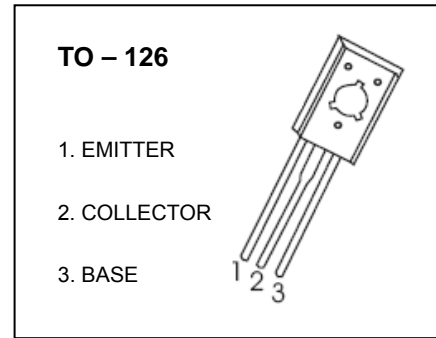


## TO-126 Plastic-Encapsulate Transistors

### KSD1692 TRANSISTOR (NPN)

#### FEATURES

- High DC Current Gain
- Low Collector Saturation Voltage
- High Power Dissipation



#### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	150	V
V <sub>CE0</sub>	Collector-Emitter Voltage	100	V
V <sub>EBO</sub>	Emitter-Base Voltage	8	V
I <sub>C</sub>	Collector Current	3	A
P <sub>C</sub>	Collector Power Dissipation	1.25	W
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	100	°C/W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

#### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

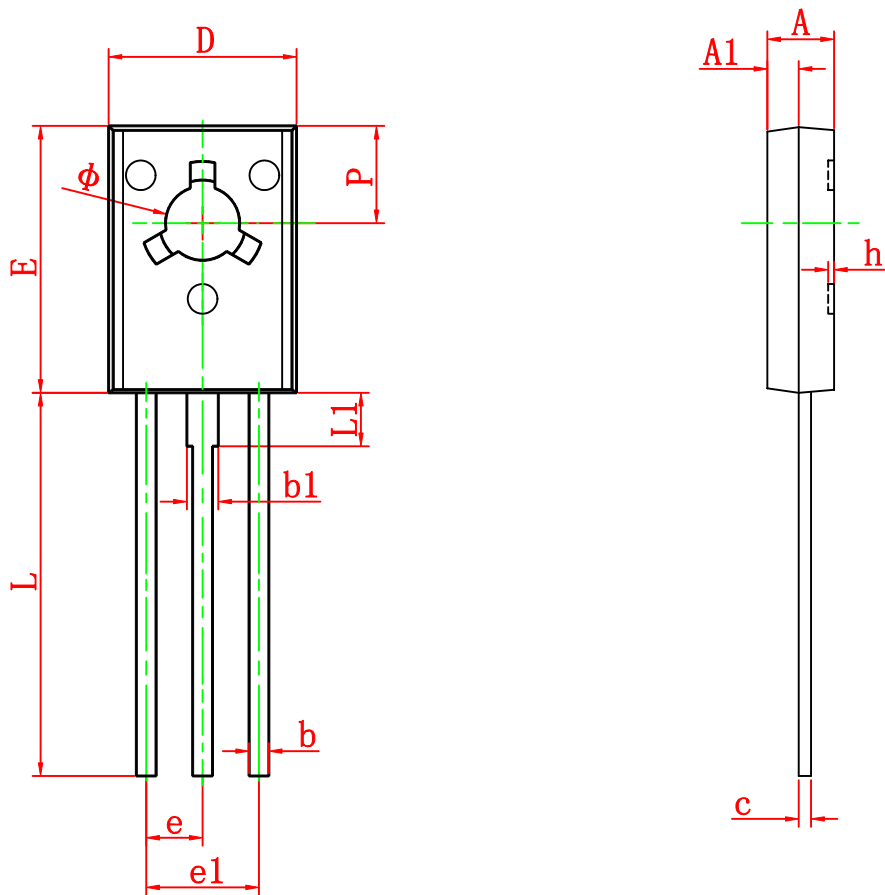
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =1mA, I <sub>E</sub> =0	150			V
Collector-emitter breakdown voltage	V <sub>CE0(SUS)</sub> *	I <sub>C</sub> =30mA, I <sub>B</sub> =0	100			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =5mA, I <sub>C</sub> =0	8			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =100V, I <sub>E</sub> =0			10	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			2	mA
DC current gain	h <sub>FE(1)</sub> *	V <sub>CE</sub> =2V, I <sub>C</sub> =1.5A	2K		20K	
	h <sub>FE(2)</sub> *	V <sub>CE</sub> =2V, I <sub>C</sub> =3A	1K			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub> *	I <sub>C</sub> =1.5A, I <sub>B</sub> =1.5mA			1.2	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub> *	I <sub>C</sub> =1.5A, I <sub>B</sub> =1.5mA			2	V

\*Pulse test: pulse width ≤300μs, duty cycles ≤ 1.5%.

#### CLASSIFICATION OF h<sub>FE(1)</sub>

RANK	O	Y	G
RANGE	2K-5K	4K-12K	6K-20K

# TO-126 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.500	2.900	0.098	0.114
A1	1.100	1.500	0.043	0.059
b	0.660	0.860	0.026	0.034
b1	1.170	1.370	0.046	0.054
c	0.450	0.600	0.018	0.024
D	7.400	7.800	0.291	0.307
E	10.600	11.000	0.417	0.433
e	2.290 TYP		0.090 TYP	
e1	4.480	4.680	0.176	0.184
h	0.000	0.300	0.000	0.012
L	15.300	15.700	0.602	0.618
L1	2.100	2.300	0.083	0.091
P	3.900	4.100	0.154	0.161
Φ	3.000	3.200	0.118	0.126