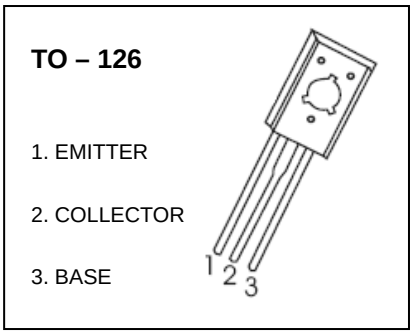
TO-126Plastic-Encapsulate Transistors

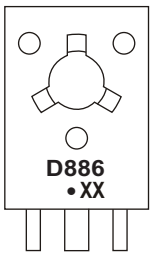
TRANSISTOR (NPN)



FEATURES

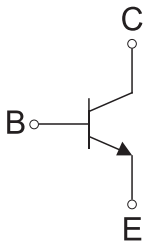
- Low Voltage
- High Current

MARKING



D886=Device code
Solid dot= Green molding compound device, if none, the normal device
XX=Code

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SD886	TO-126	Bulk	200pcs/Bag
2SD886-TU	TO-126	Tube	60pcs/Tube

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	3	A
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

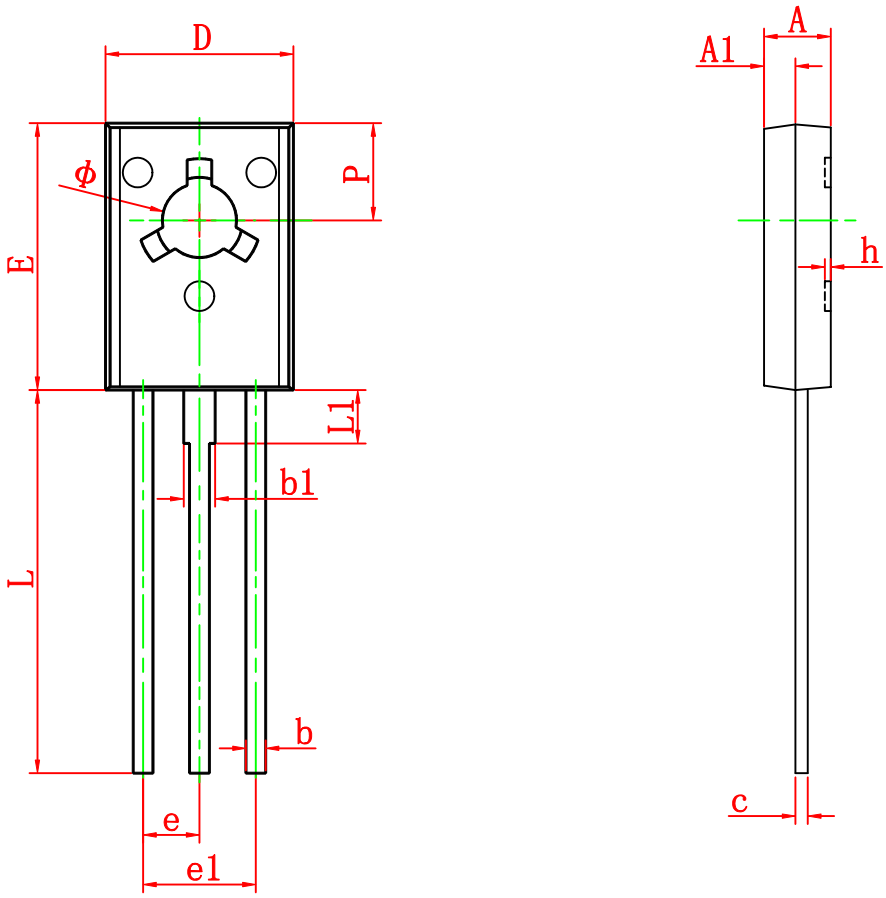
ELECTRICAL CHARACTERISTICS

T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=5mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=50V,I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=3V,I_C=0			1	μA
DC current gain	$h_{FE(1)}^*$	V_{CE}=2V, I_C=20mA	100			
	$h_{FE(2)}^*$	V_{CE}=2V, I_C=1A	100		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A,I_B=200mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2A,I_B=200mA			2	V
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0, f=1MHz		45		pF
Transition frequency	f_T	V_{CE}=5V,I_C=100mA		80		MHz

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

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