

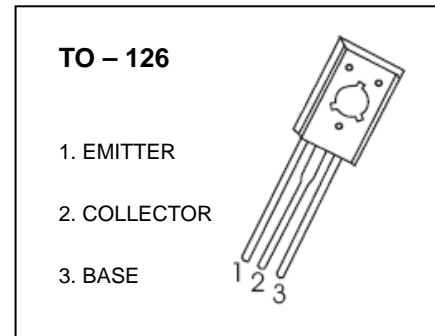


DONGGUAN NANJING ELECTRONICS LTD.,  
**TO-126 Plastic-Encapsulate Transistors**

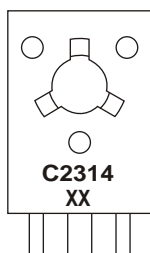
**2SC2314** TRANSISTOR (NPN)

**FEATURES**

- Transceiver Driver Applications

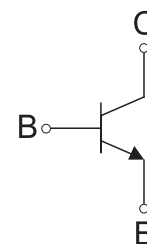


**MARKING**



C2314=Device code  
XX=Code

**Equivalent Circuit**



**ORDERING INFORMATION**

Part Number	Package	Packing Method	Pack Quantity
2SC2314	TO-126	Bulk	200pcs/Bag
2SC2314-TU	TO-126	Tube	60pcs/Tube

**MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)**

Symbol	Parameter	Value	Unit
$V_{\text{CBO}}$	Collector-Base Voltage	75	V
$V_{\text{CEO}}$	Collector-Emitter Voltage	45	V
$V_{\text{EBO}}$	Emitter-Base Voltage	5	V
$I_{\text{c}}$	Collector Current	1	A
$P_{\text{c}}$	Collector Power Dissipation	0.75	W
$R_{\theta\text{JA}}$	Thermal Resistance From Junction To Ambient	167	$^{\circ}\text{C/W}$
$T_{\text{J}}, T_{\text{stg}}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

## ELECTRICAL CHARACTERISTICS

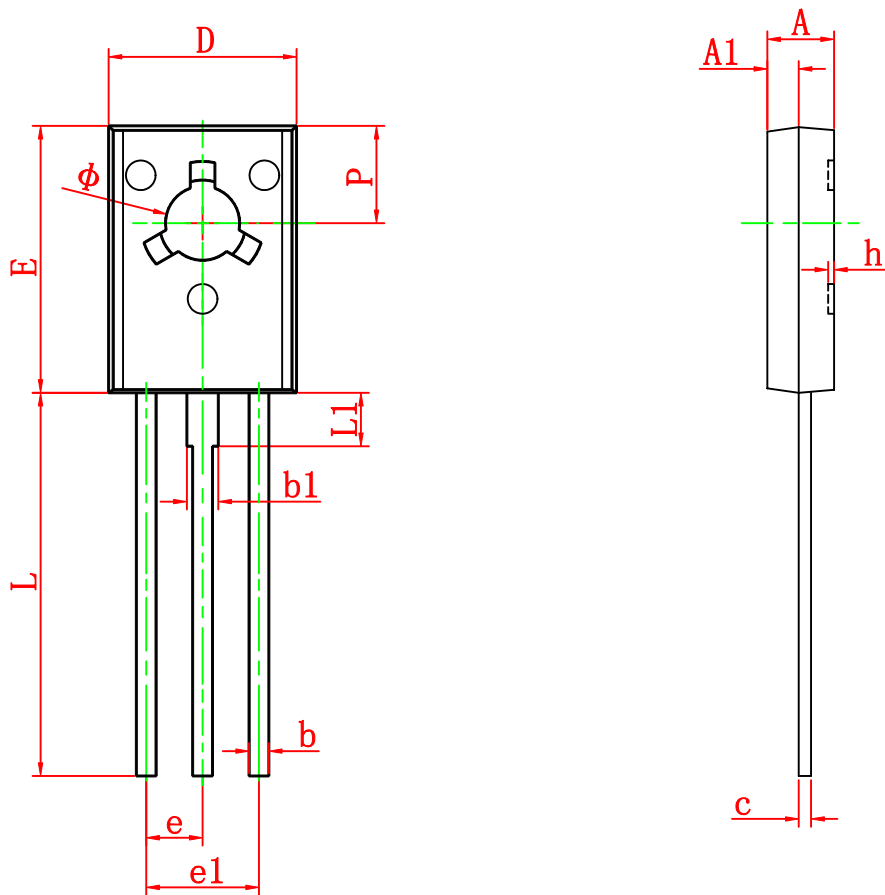
$T_a=25^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	75			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=40\text{V}, I_E=0$			1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=500\text{mA}$	60		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			1.2	V
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			25	pF
Transition frequency	$f_T$	$V_{CE}=10\text{V}, I_C=50\text{mA}$	180			MHz

### CLASSIFICATION OF $h_{FE}$

RANK	D	E	F
RANGE	60-120	100-200	160-320

# 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