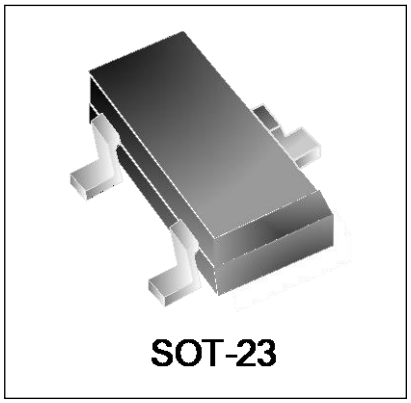
WT591

PNP Transistor

Features

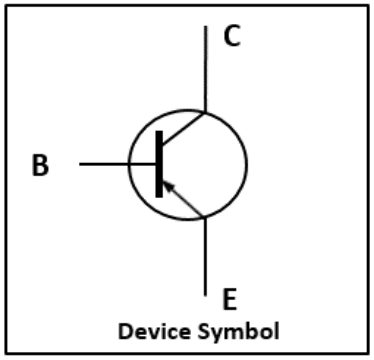
- Low equivalent on-resistance
- Complementary NPN Type: WT491

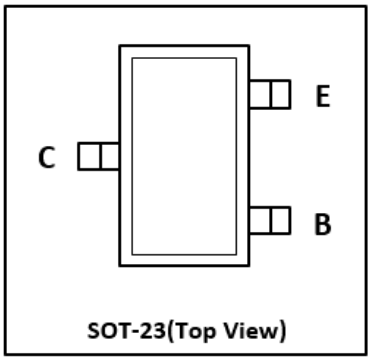


Mechanical Characteristics

- SOT-23 Package
- Marking : Making Code
- RoHS Compliant

Schematic & PIN Configuration





Absolute Maximum Rating

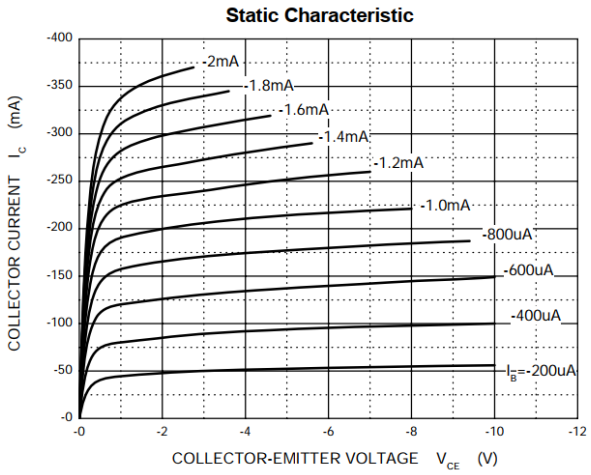
Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	-80	V
Collector Emitter Voltage	V_{CEO}	-60	V
Emitter Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Power Dissipation	P_D	500	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ 150	°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	500	°C/W

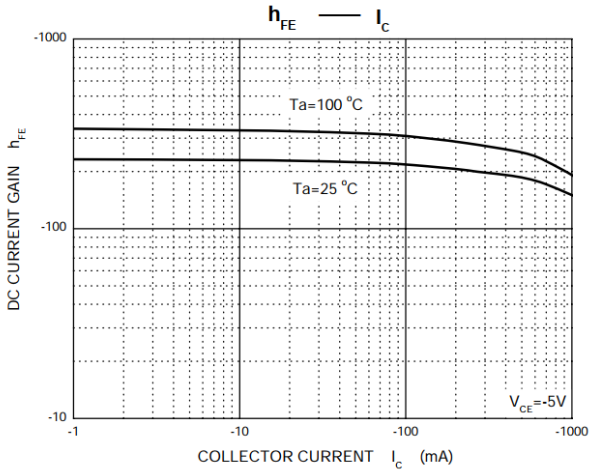
©2021 WAYON Corporation

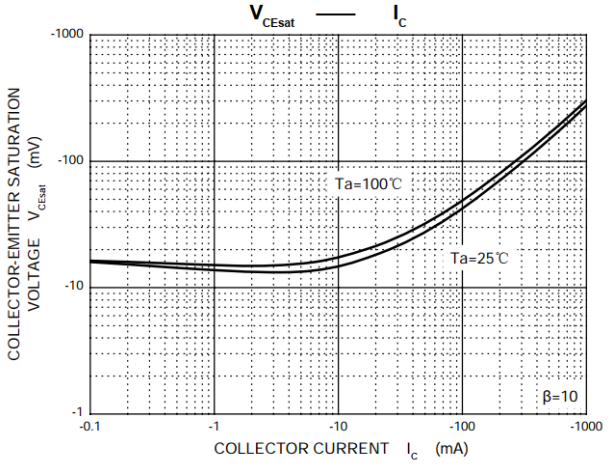
Electrical Characteristics (T_{amb}=25°C unless otherwise specified)

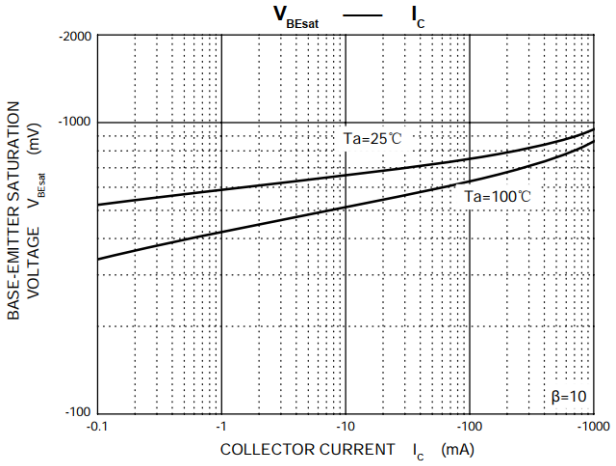
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -100μA, I_E = 0	-80	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -10mA, I_B = 0	-60	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -100μA, I_C = 0	-5	-	-	V
Collector Cut-off Current	I_{CBO}	V_{CB} = -60V, I_E = 0	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -4V, I_C = 0	-	-	-100	nA
DC Current Gain	$h_{FE(1)}$	V_{CE} = -5V, I_C = -1mA	100	-	-	
	$h_{FE(2)}$	V_{CE} = -5V, I_C = -500mA	100	-	300	
	$h_{FE(3)}$	V_{CE} = -5V, I_C = -1A	80	-	-	
	$h_{FE(4)}$	V_{CE} = -5V, I_C = -2A	15	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -500mA, I_B = -50mA	-	-	-0.30	V
		I_C = -1A, I_B = -100mA	-	-	-0.60	V
Base -Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -1A, I_B = -100mA	-	-	-1.20	V
Base-Emitter Voltage	V_{BE}	V_{CE} = -5V, I_C = -1A	-	-	-1.00	V
Transition Frequency	f_T	V_{CE}= -10V, I_C= -50mA, f= 100MHz	150	-	-	MHz
Output Capacitance	C_{OBO}	V_{CB}= -10V,f = 1MHz	-	-	10	pF

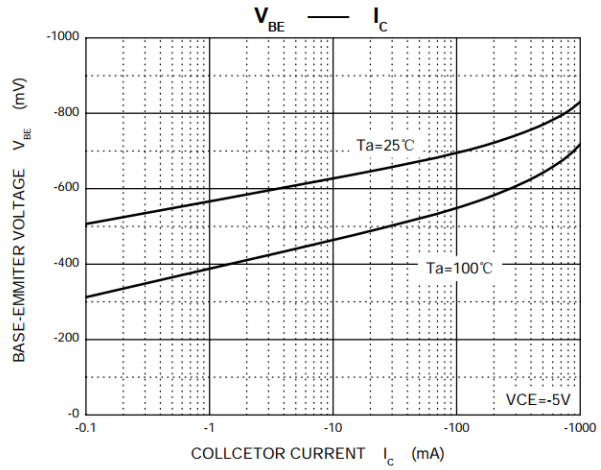
Typical Characteristics

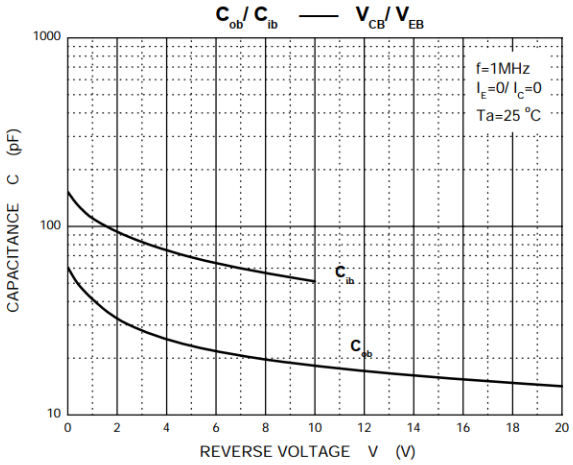





V_{CEsat} — I_C
COLLECTOR-EMITTER SATURATION VOLTAGE V_{CEsat} (mV)
-1000
-100
-10
-1
-0.1
-1
-10
-100
-1000
Ta=100℃
Ta=25℃
β=10
COLLECTOR CURRENT I_C (mA)

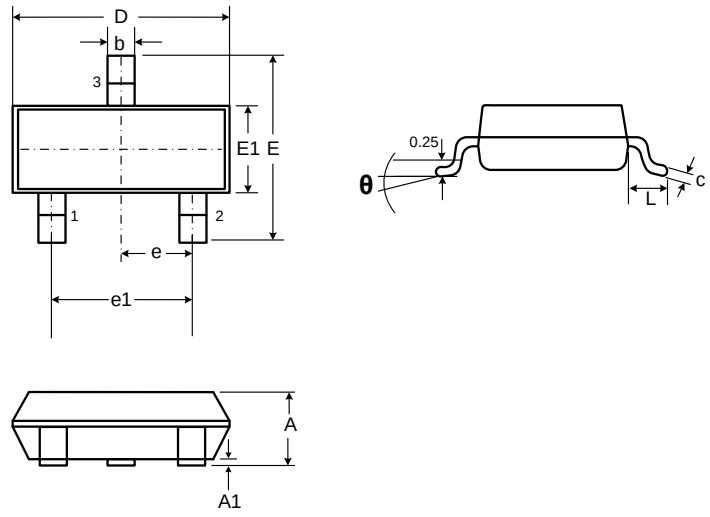

V_{BEsat} — I_C
BASE-EMITTER SATURATION VOLTAGE V_{BEsat} (mV)
-2000
-1000
-100
-0.1
-1
-10
-100
-1000
Ta=25℃
Ta=100℃
β=10
COLLECTOR CURRENT I_C (mA)

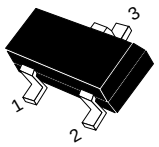

V_{BE} — I_C
BASE-EMMITER VOLTAGE V_{BE} (mV)
-1000
-800
-600
-400
-200
-0
-0.1
-1
-10
-100
-1000
Ta=25℃
Ta=100℃
VCE=-5V
COLLCETOR CURRENT I_C (mA)


C_{ob} / C_{ib} — V_{CB} / V_{EB}
CAPACITANCE C (pF)
1000
100
10
0
2
4
6
8
10
12
14
16
18
20
f=1MHz
I_E=0/ I_C=0
Ta=25 °C
C_{ib}
C_{ob}
REVERSE VOLTAGE V (V)

Outline Drawing – SOT-23

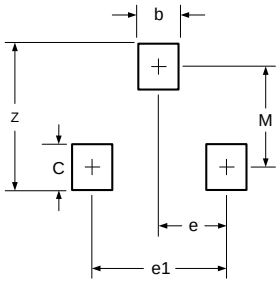
PACKAGE OUTLINE





SOT-23

DIMENSIONS				
SYMBOL	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.90	1.15	0.035	0.045
A1	0.00	0.10	0.000	0.004
b	0.30	0.50	0.012	0.020
c	0.08	0.15	0.003	0.006
D	2.80	3.00	0.110	0.118
E	2.25	2.55	0.089	0.100
E1	1.20	1.40	0.047	0.055
e	0.95 BSC		0.0374 BSC	
e1	1.80	2.00	0.071	0.079
L	0.30	0.50	0.012	0.020
θ	0	8°	0	8°

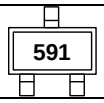


DIMENSIONS		
DIM	MILLIMETERS	INCHES
M	0.0795	2.02
C	0.0315	0.80
Z	0.111	2.82
e	0.037 BSC	0.95 BSC
e1	0.075 BSC	1.9 BSC
b	0.0315	0.80

Notes

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burrs.

Marking Codes

Part Number	WT591
Marking Code	

Package Information

Qty：3k/Reel

CONTACT INFORMATION

No.1001, Shiwan (7) Road, Pudong District, Shanghai, P.R.China.201207
Tel: 86-21-68969993 Fax: 86-21-50757680 Email: market@way-on.com
WAYON website: **http://www.way-on.com**
For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.