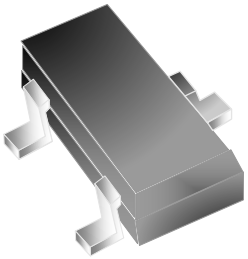
WT3906G

PNP Silicon Transistor

Features

- Complementary NPN Type Available (WT3904G)

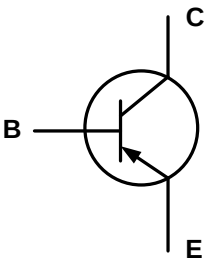


SOT-323

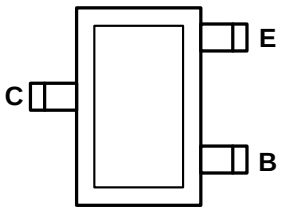
Mechanical Characteristics

- SOT-323 Package
- Marking : Making Code
- RoHS Compliant & HF

Schematic & PIN Configuration



Device Symbol



SOT-323 (Top view)

Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	-40	V
Collector Emitter Voltage	V_{CEO}	-40	V
Emitter Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-200	mA
Power Dissipation	P_D	200	mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ 150	°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W

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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 = -10μA, I_E = 0	-40	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = -1mA, I_B = 0	-40	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA, I_C = 0	-6	-	-	V
Collector cut-off current	I_{CBO}	V_{CB} = -30V, I_E = 0	-	-	-100	nA
Collector cut-off current	I_{CEX}	V_{CE} = -30V, $V_{EB(off)}$ = -3V	-	-	-50	
Emitter cut-off current	I_{EBO}	V_{EB} = -5V,I_C = 0	-	-	-100	
DC current gain	$h_{FE(1)}$	V_{CE} = -1V, I_C = -0.1mA	60	-	-	
	$h_{FE(2)}$	V_{CE} = -1V, I_C = -1mA	80	-	-	
	$h_{FE(3)}$	V_{CE} = -1V, I_C = -10mA	100	-	300	
	$h_{FE(4)}$	V_{CE} = -1V, I_C = -50mA	60	-	-	
	$h_{FE(5)}$	V_{CE} = -1V, I_C = -100mA	30	-	-	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -10mA,I_B = -1mA	-	-	-0.2	V
		I_C = -50mA,I_B = -5mA	-	-	-0.3	
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -10mA,I_B = -1mA	-0.65	-	-0.85	V
		I_C = -50mA,I_B = -5mA	-	-	-0.95	
Transition frequency	f_T	V_{CE}= -20V, I_C= -10mA, f=100MHz	300	-	-	MHz
Collector output capacitance	C_{ob}	V_{CB}= -5V, I_E= 0, f= 1MHz	-	-	4.5	pF
Base input capacitance	C_{ib}	V_{EB}= -0.5V, I_E= 0, f= 1MHz	-	-	10	pF
Delay time	t_d	V_{CC} = -3V, V_{BC} = -0.5V, I_C = -10mA, I_{B1} = -1mA	-	-	35	ns
Rise time	t_r		-	-	35	ns
Storage time	t_s	V_{CC} = -3V, I_C = -10mA, I_{B1} = I_{B2} = -1mA	-	-	225	ns
Fall time	t_f		-	-	75	ns

Typical Characteristics

Figure 1.Static Characteristic

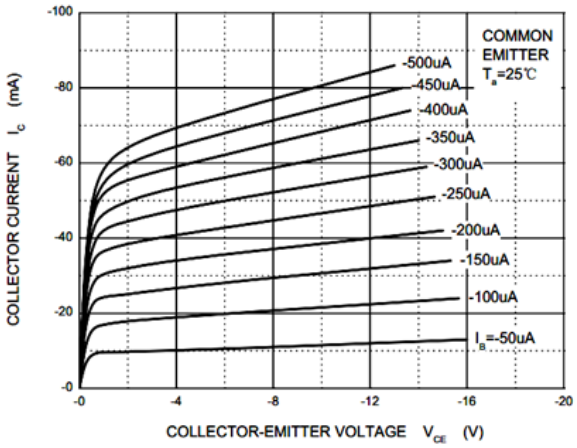


Figure 2. h_{FE} vs. I_C

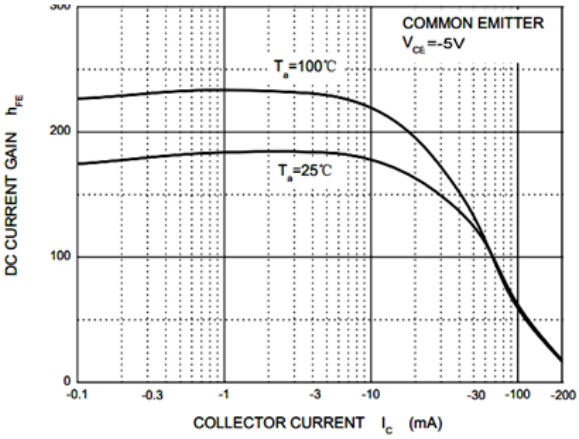


Figure 3. $V_{CE(sat)}$ vs. I_C

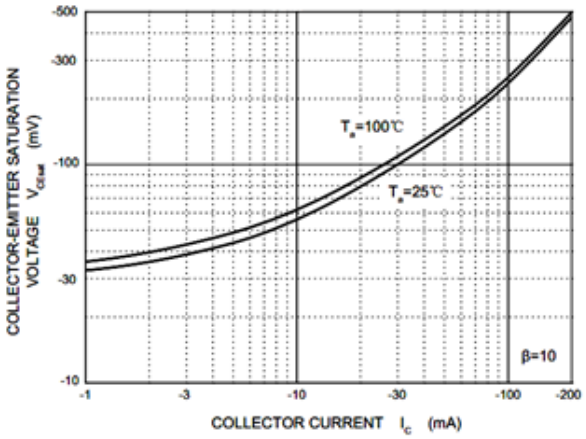


Figure 4. $V_{BE(sat)}$ vs. I_C

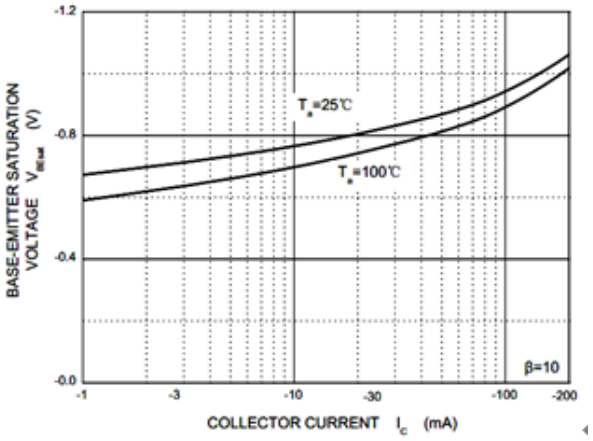


Figure 5. I_C vs. V_{BE}

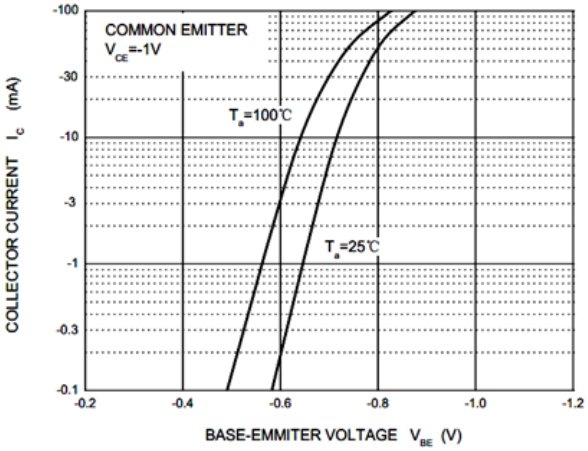
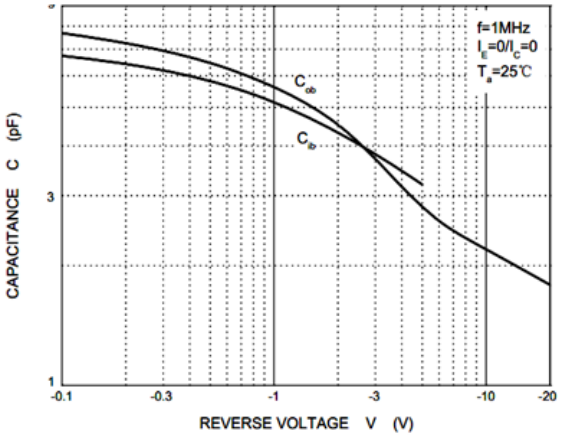
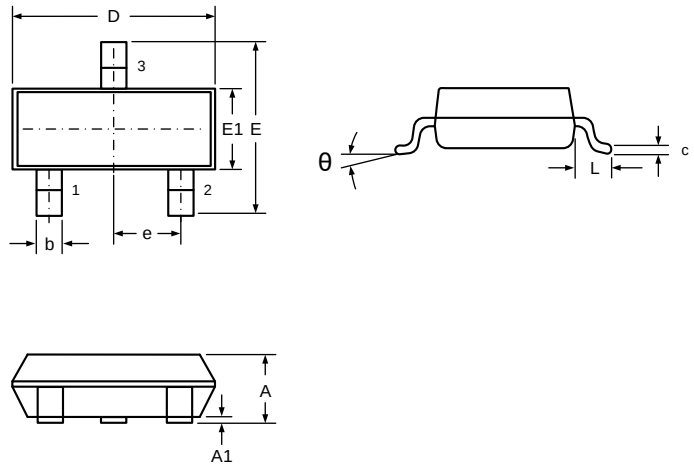


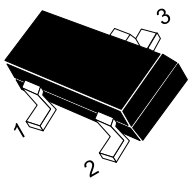
Figure 6. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}



Outline Drawing – SOT-323

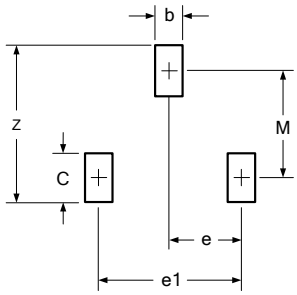
PACKAGE OUTLINE





SOT-323

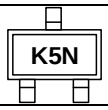
SYMBOL	MILLIMETERS	
	MIN	MAX
A	0.90	1.10
A1	0.00	0.10
b	0.20	0.40
c	0.08	0.15
D	2.00	2.20
E	2.15	2.45
E1	1.15	1.35
e	0.65 TYP	
L	0.525 REF	
θ	0°	8°



DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.076	1.90
C	0.036	0.90
Z	0.108	2.70
e	0.026	0.65
e1	0.052	1.30
b	0.028	0.70

Notes:
Controlling Dimension: Millimeter.

Marking Codes

Part Number	WT3906G
Marking Code	

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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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.