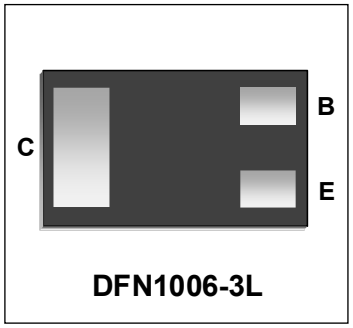
WT3906F

PNP Silicon Transistor

Features

- Complementary to WT3904F
- Epitaxial Planar Die Construction
- Ultra Small SMD Plastic Package

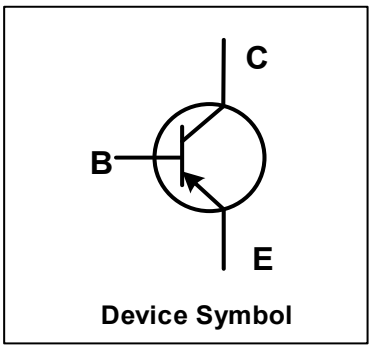


DFN1006-3L

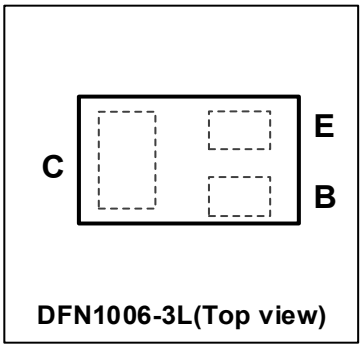
Mechanical Characteristics

- DFN1006-3L Package
- Marking : Making Code
- RoHS Compliant & HF
- Device meets MSL1 requirement

Schematic & PIN Configuration



Device Symbol



DFN1006-3L(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}	-5	V
Collector Current	I_C	-200	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ 150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	1250	°C/W

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

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	-5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB} = -40V,I_E = 0	-	-	-50	nA
Collector Cut-off Current	I_{CEX}	V_{CE} = -30V,$V_{BE(off)}$ = -3V	-	-	-50	nA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -5V,I_C = 0	-	-	-100	nA
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	-	-	-0.25	V
		I_C = -50mA, I_B = -5mA	-	-	-0.40	V
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	V
Transition Frequency	f_T	V_{CE}= -20V, I_C= -10mA,f= 100MHz	250	-	-	MHz
Collector output capacitance	C_{ob}	V_{CB}= -5V, I_E= 0, f=1MHz	-	4	-	pF
Base Input capacitance	C_{ib}	V_{EB}= -0.5V, I_E= 0, f=1MHz	-	7	-	pF
Delay Time	t_d	V_{CC} = -3V, $V_{BE(OFF)}$ = 0.5V, I_C = -10mA, I_{B1} = -1mA	-	30	-	ns
Rise Time	t_r		-	30	-	ns
Storage Time	t_s	V_{CC} = -3V, I_C = -10mA, I_{B1} = I_{B2} = -1mA	-	190	-	ns
Fall Time	t_f		-	50	-	ns

Typical Characteristics

Figure 1.Static Characteristic

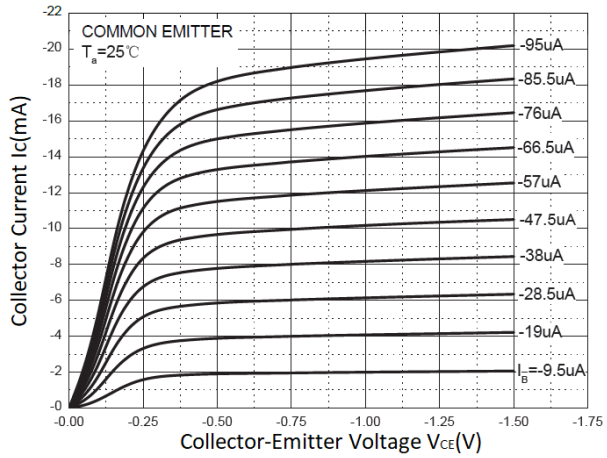


Figure 2. h_{FE} vs. I_C

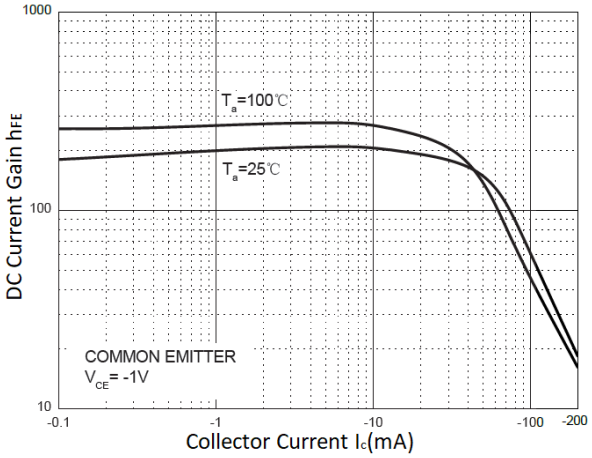


Figure 3. $V_{CE(sat)}$ vs. I_C

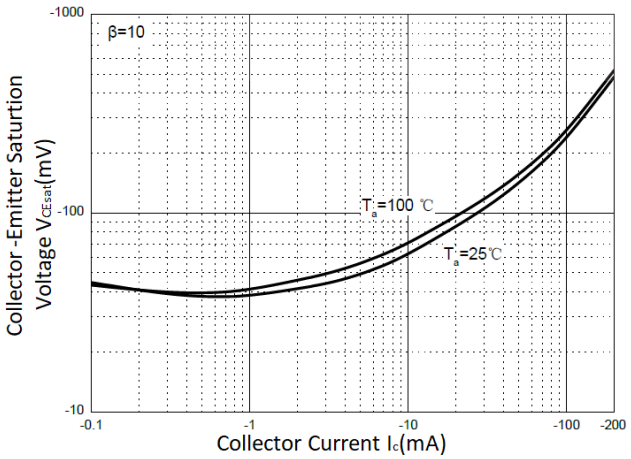


Figure 4. $V_{BE(sat)}$ vs. I_C

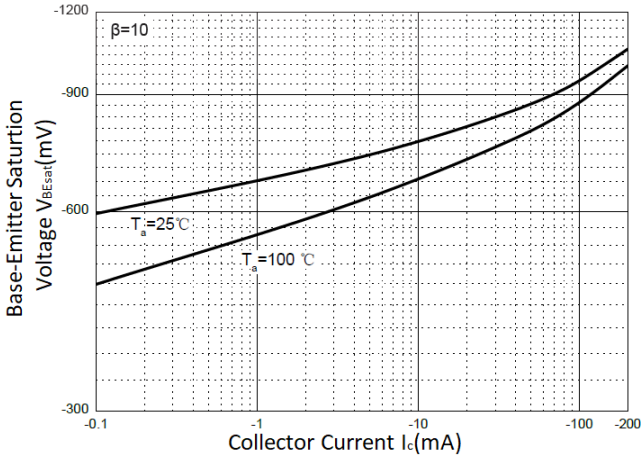


Figure 5. I_C vs. V_{BE}

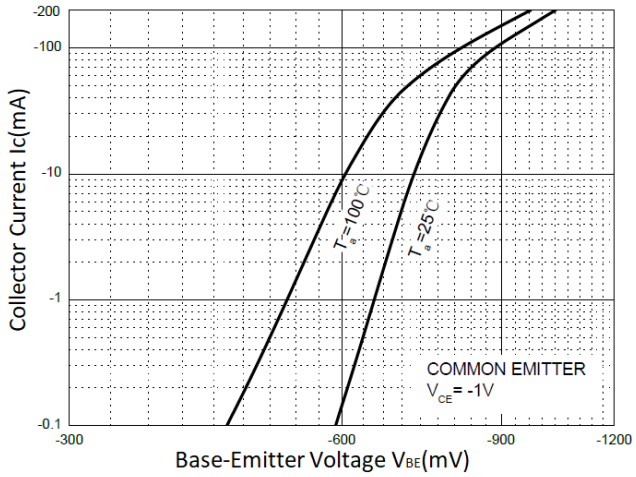


Figure 6. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}

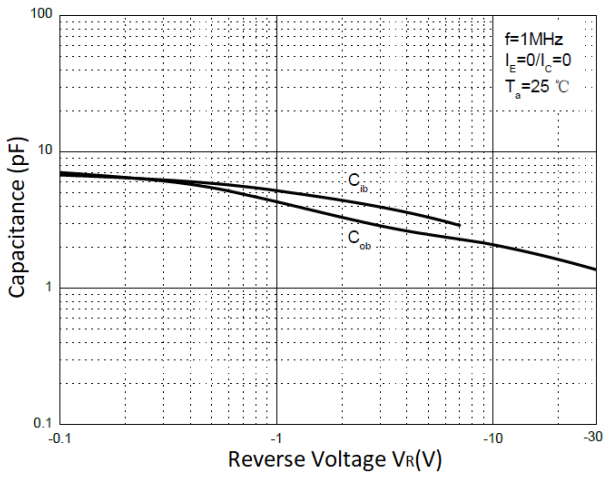


Figure 7. f_T vs. I_C

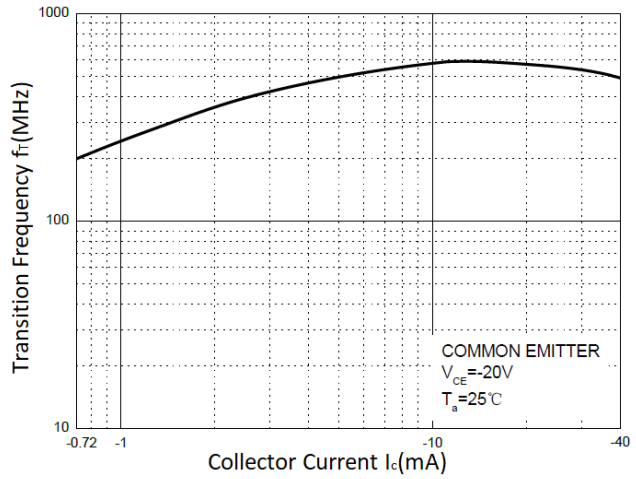
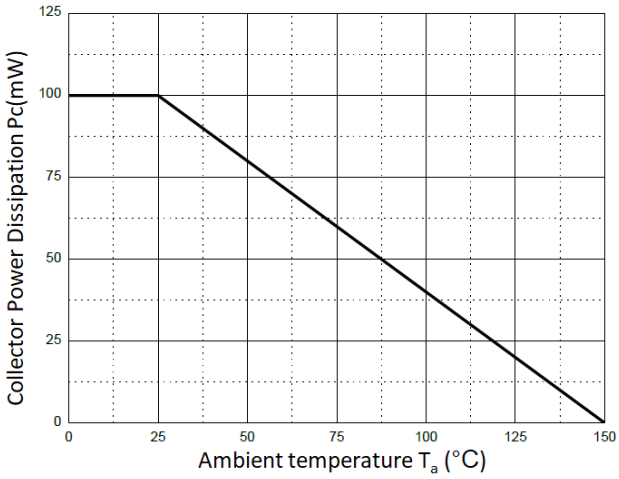
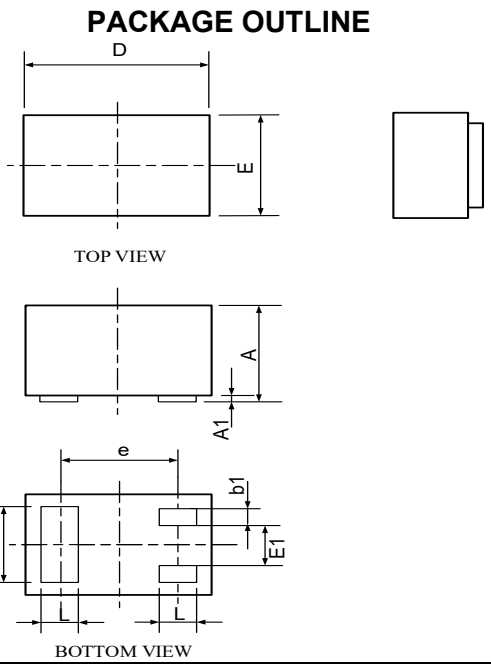


Figure 8. P_C vs. T_a



Outline Drawing – DFN1006-3L

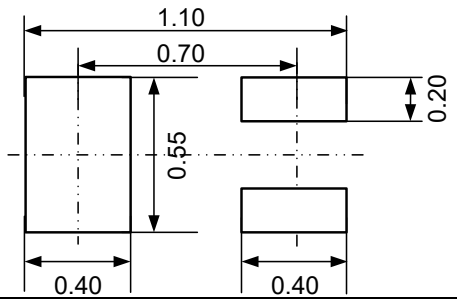




DFN1006-3L

SYMBOL	MILLIMETER		
	MIN.	TYP.	MAX.
A	0.45	0.50	0.55
A1	0．00	-	0.05
b	0.40	0.50	0.60
b1	0.10	0.15	0.20
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
E1	0.19BSC		
L	0.20	0.25	0.30

Land Pattern



Marking Codes

Part Number	WT3906F
Marking Code	

Package Information

Qty：10k/Reel

CONTACT INFORMATION

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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.