CYG WAYON
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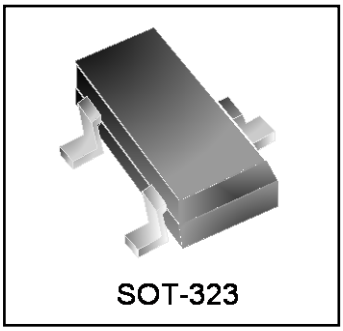
WT847BW

NPN Silicon Transistor

Features

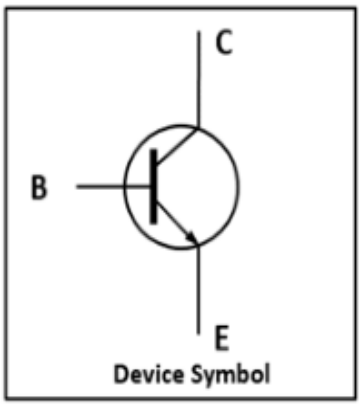
- Ideally suited for automatic insertion
- For switching and AF amplifier applications

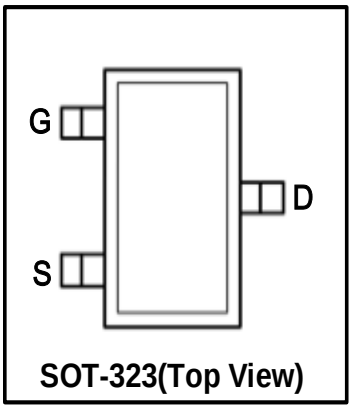


Mechanical Characteristics

- SOT-323 package
- Marking : Making Code
- RoHS Compliant

Schematic & PIN Configuration





Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	45	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	0.1	A
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

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	50	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B = 0	45	-	-	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	-	-	15	nA
Emitter cut-off current	I_{EBO}	V_{EB} = 5V, I_C = 0	-	-	100	nA
DC current gain	h_{FE}	V_{CE} = 5V, I_C = 2mA	200	-	450	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 100mA, I_B = 5mA	-	-	0.6	V
		I_C = 10mA, I_B = 0.5mA	-	-	0.25	
Base-emitter voltage	V_{BE}	V_{CE}=5V ,I_C = 10mA	-	-	0.77	V
		V_{CE}=5V ,I_C = 2mA	0.58	-	0.7	
Transition frequency	f_T	V_{CE}=5V,I_C=10mA, f=100MHz	100	-	-	MHz
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0,f = 1MHz	-	-	4.5	pF

Typical Characteristics

Figure 1. Static Characteristics

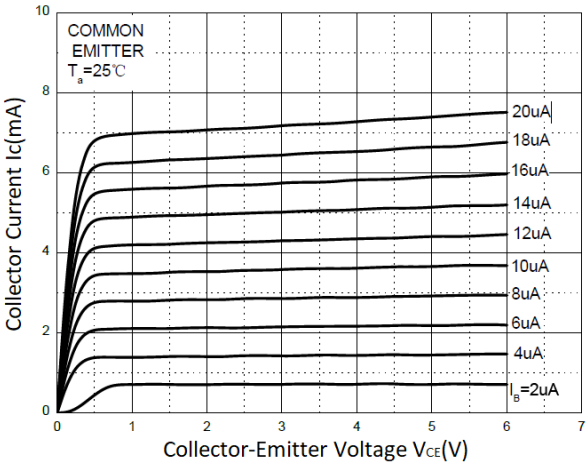


Figure 2. h_{FE} vs. I_C

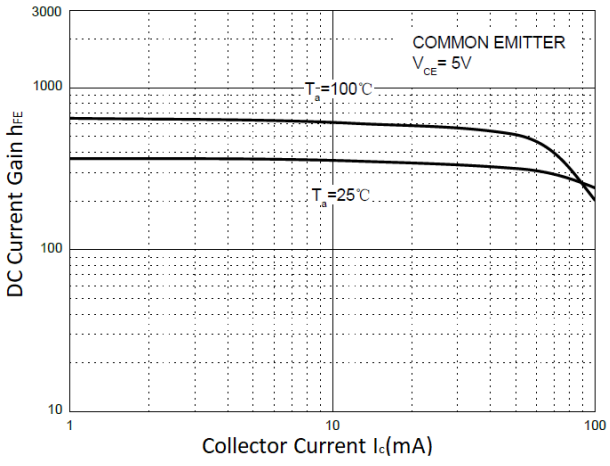


Figure 3. $V_{BE(sat)}$ vs. I_C

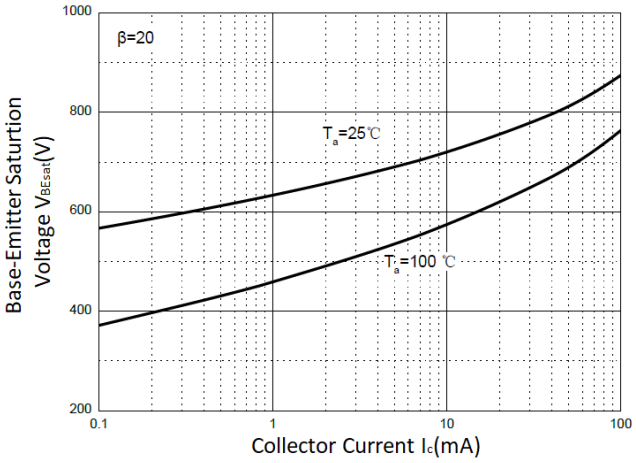


Figure 4. $V_{CE(sat)}$ vs. I_C

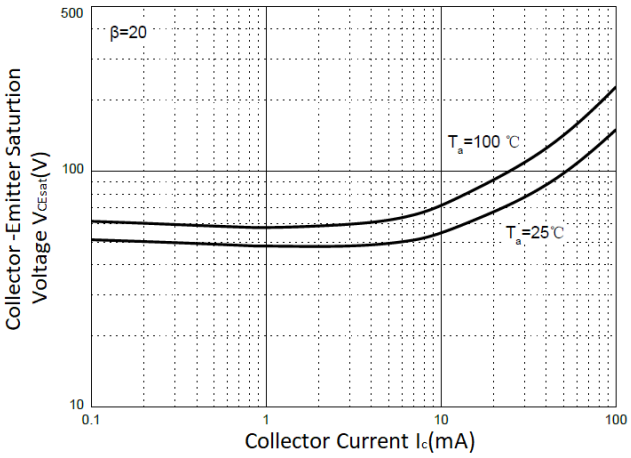


Figure 5. I_C vs. V_{BE}

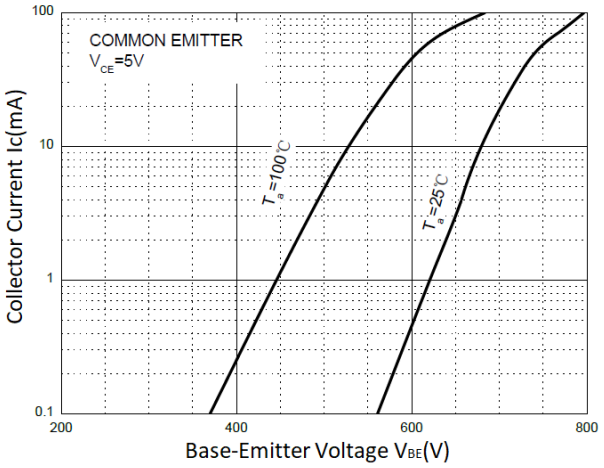


Figure 6. f_T vs. I_C

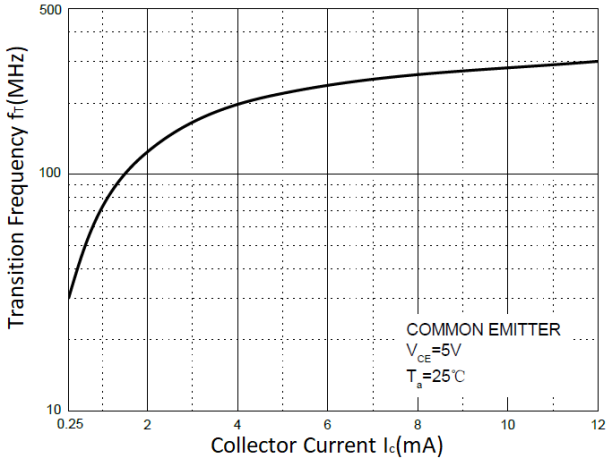


Figure 7. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}

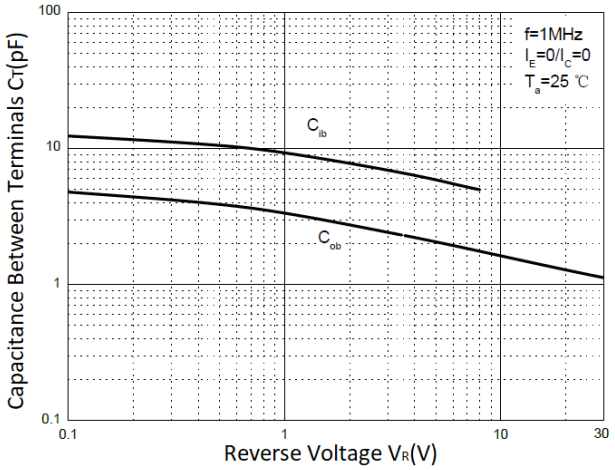
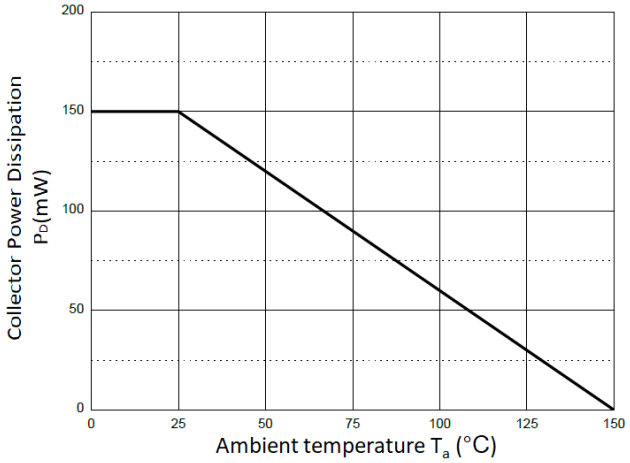
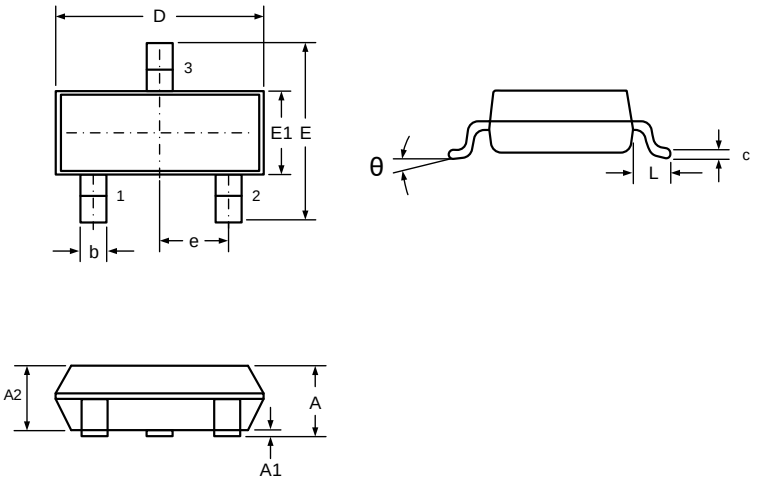


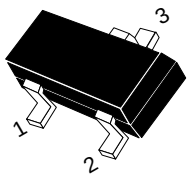
Figure 8. P_C vs. T_a



Outline Drawing – SOT-323

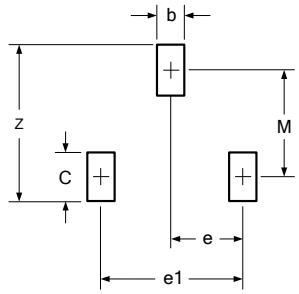
PACKAGE OUTLINE





SOT-323

DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
D	2.000	2.200	0.079	0.087
b	0.300	0.500	0.012	0.020
c	0.100	0.150	0.004	0.006
E	2.150	2.450	0.085	0.096
E1	1.150	1.350	0.045	0.053
e	0.650TYP		0.026TYP	
L	0.525 REF		0.021 REF	
θ	0	8°	0	8°



DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.076	1.90
C	0.036	0.9
Z	0.108	2.7
e	0.026	0.65
e1	0.052	1.30
b	0.028	0.7

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	WT847BW
Marking Code	1F

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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>>WAY-ON(维安)