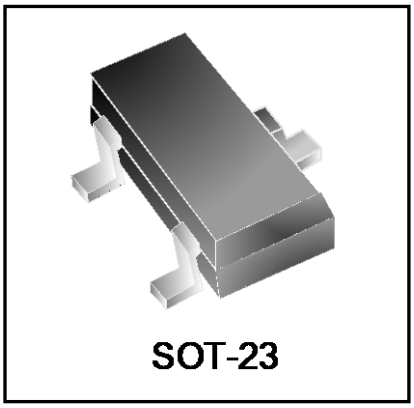
WT856B

PNP Silicon Transistor

Features

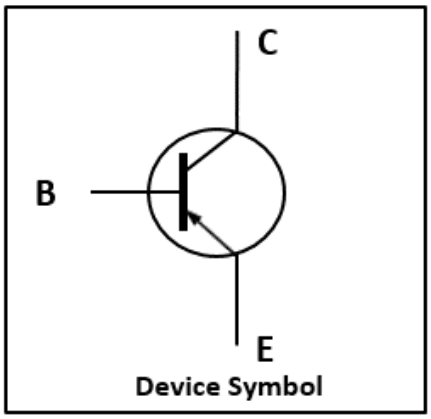
- Ideally Suited for Automatic Insertion
- For Switching and AF Amplifier Applications

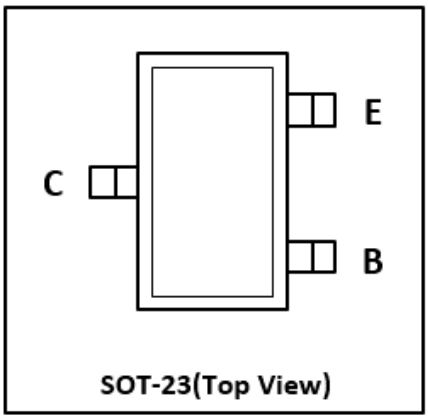


Mechanical Characteristics

- 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}	-65	V
Emitter Base Voltage	V_{EBO}	-5	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
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	°C/W

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	-80	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -10mA, I_B = 0	-65	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -1μA, I_C = 0	-5	-	-	V
Collector Cut-off Current	I_{CBO}	V_{CB} = -70V, I_E = 0	-	-	-100	nA
Collector Cut-off Current	I_{CEO}	V_{EB} = -60V, I_B= 0			-100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -5V, I_C = 0	-	-	-100	nA
DC Current Gain	$h_{FE(1)}$	V_{CE} = -5V, I_C = -2mA	220	-	475	-
	$h_{FE(2)}$	V_{CE} = -5V, I_C = -1mA	125	-	-	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -100mA, I_B = -5mA	-	-	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -100mA, I_B = -5mA	-	-	-1.1	V
Transition Frequency	f_T	V_{CE}= -5V,I_C= -10mA,f=100MHz	100	-	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}= -10V,f=1MHz	-	-	4.5	pF

Typical Characteristics

Figure 1.Static Characteristics

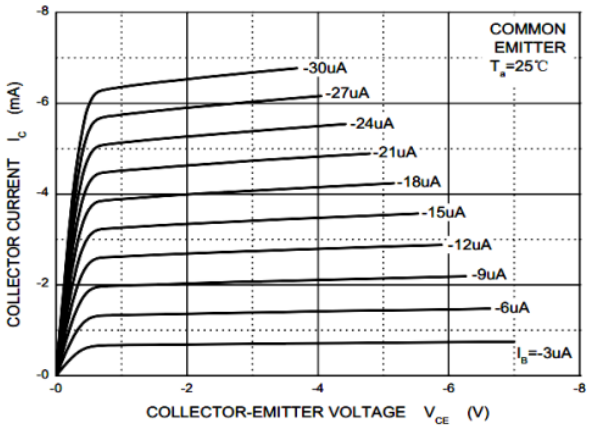


Figure 2. h_{FE} vs. I_C

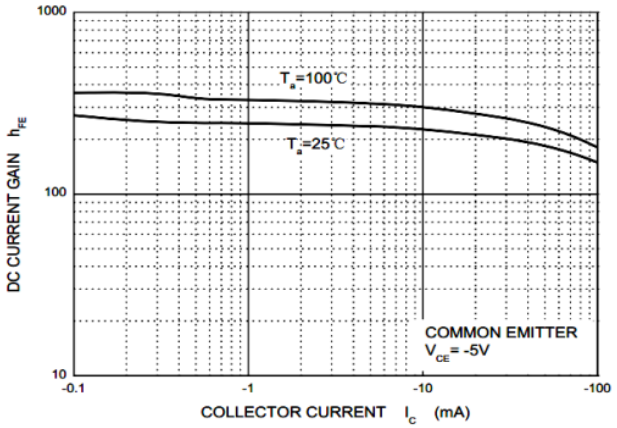


Figure 3. $V_{CE(sat)}$ vs. I_C

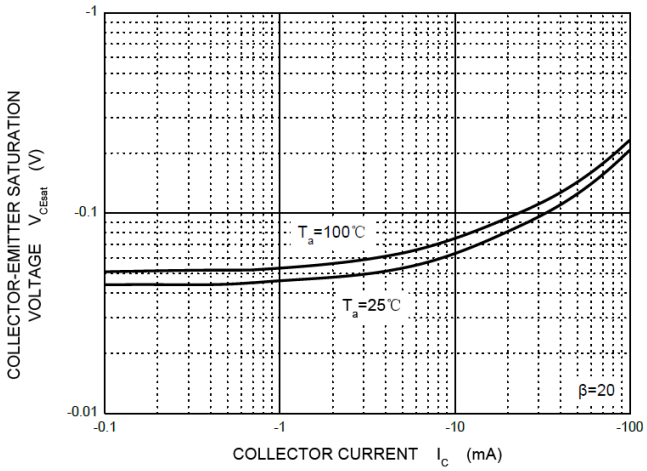


Figure 4. $V_{BE(sat)}$ vs. I_C

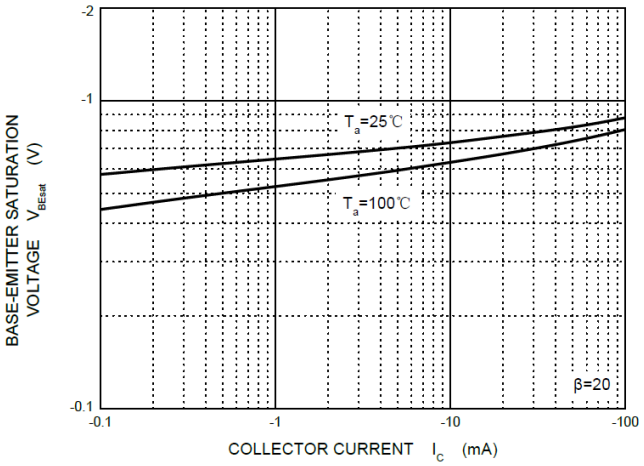


Figure 5. I_C vs. V_{BE}

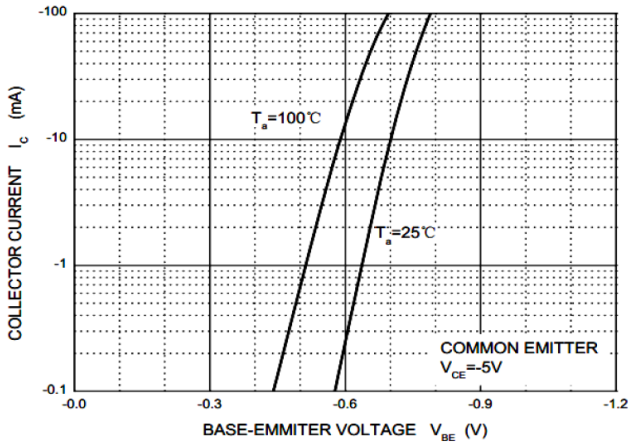


Figure 6. f_T vs. I_C

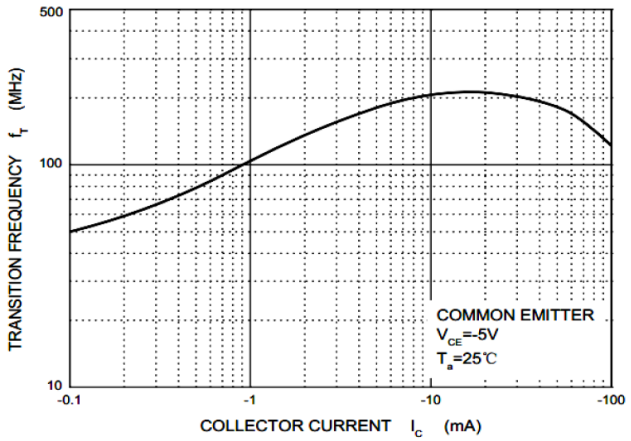


Figure 7. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}

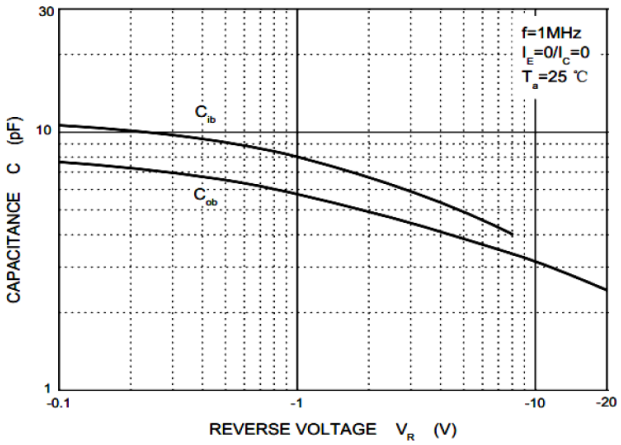
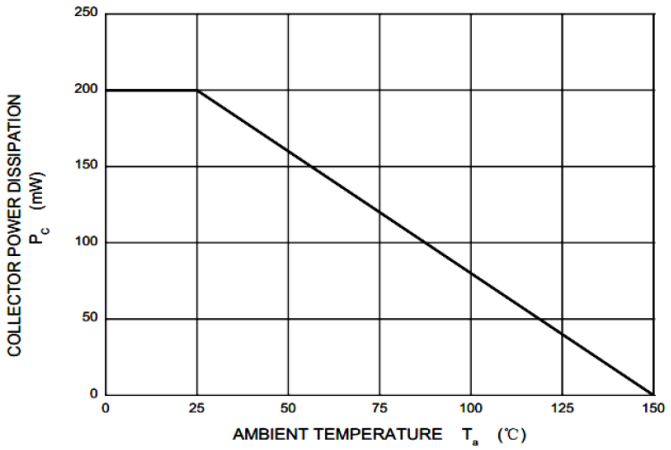
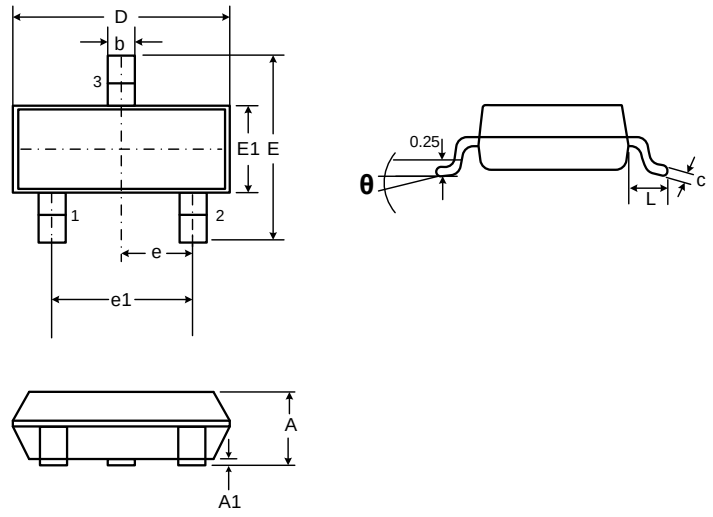


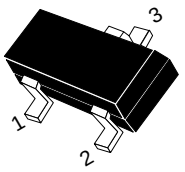
Figure 8. P_C vs. T_a



Outline Drawing – SOT-23

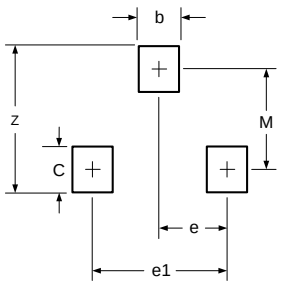
PACKAGE OUTLINE





SOT-23

DIMENSIONS				
SYMBOL	MILLIMETER		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	0.45	0.65	0.018	0.026
θ	0	8°	0	8°

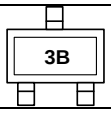


DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.0795	2.02
C	0.0315	0.80
Z	0.111	2.82
e	0.037 BSC	0.95 BSC
e1	0.075 BSC	1.9 BSC
b	0.0315	0.80

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	WT856B
Marking Code	

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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