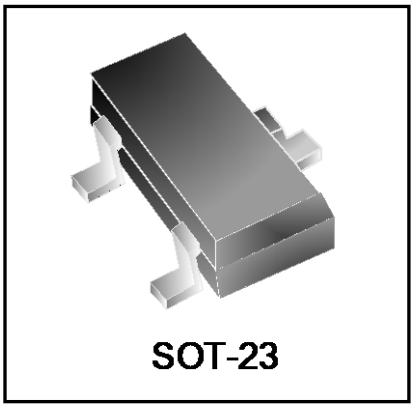
WT4403

PNP Silicon Transistor

Features

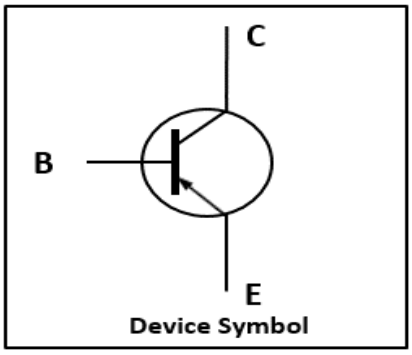
- Switching Transistor
- Collector Current: I_C= -0.6A

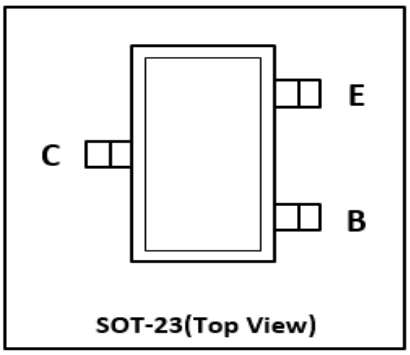


Mechanical Characteristics

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

Schematic & PIN Configuration





Absolute Maximum Rating (T_{amb}=25°C unless otherwise specified)

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	-0.6	A
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	417	°C/W
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 = -100μA, 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 = -100μA, I_C = 0	-5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB} = -35V, I_E = 0	-	-	-100	nA
Collector cut-off current	I_{CEX}	V_{CE} = -35V, V_{BE}= -0.4V	-	-	-100	nA
Emitter cut-off current	I_{EBO}	V_{EB} = -4V, I_C = 0	-	-	-100	nA
DC current gain	$h_{FE(1)}$	V_{CE} = -1V, I_C = -0.1mA	30	-	-	-
	$h_{FE(2)}$	V_{CE} = -1V, I_C = -1mA	60	-	-	-
	$h_{FE(3)}$	V_{CE} = -1V, I_C = -10mA	100	-	-	-
	$h_{FE(4)}$	V_{CE} = -2V, I_C = -150mA	100	-	300	-
	$h_{FE(5)}$	V_{CE} = -2V, I_C = -500mA	20	-	-	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -150mA, I_B = -15mA	-	-	-0.4	V
		I_C = -500mA, I_B = -50mA	-	-	-0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -150mA, I_B = -15mA	-	-	-0.95	V
		I_C = -500mA, I_B = -50mA	-	-	-1.3	V
Transition frequency	f_T	V_{CE}= -10V,I_C= -20mA, f=100MHz	200	-	-	MHz
Delay time	t_d	V_{CC} = -30V, $V_{BE(off)}$ = -0.5V I_C = -150mA , I_{B1} = -15mA	-	-	15	ns
Rise time	t_r		-	-	20	ns
Storage time	t_s	V_{CC} = -30V, I_C = -150mA I_{B1} = I_{B2} = -15mA	-	-	225	ns
Fall time	t_f		-	-	60	ns

Typical Characteristics

Figure 1.Static Characteristics

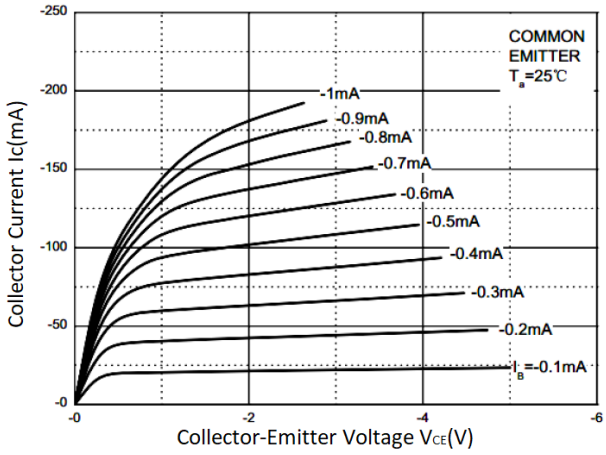


Figure 2. h_{FE} vs. I_C

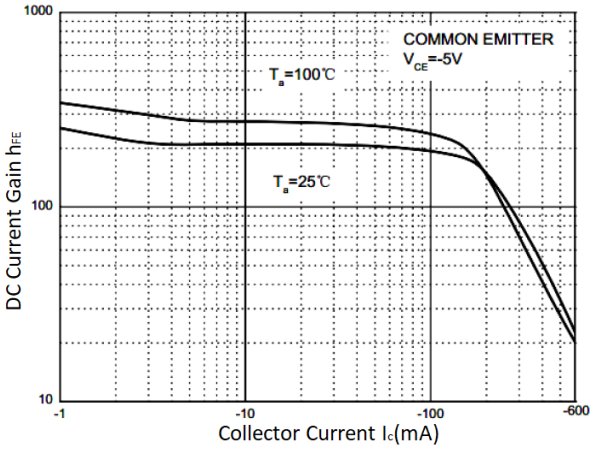


Figure 3. $V_{BE(sat)}$ vs. I_C

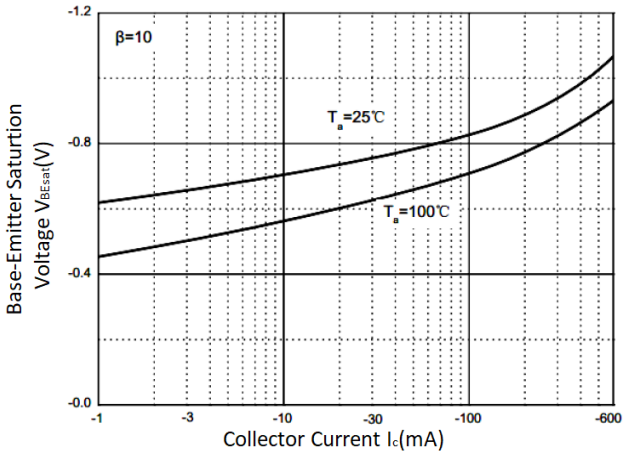


Figure 4. $V_{CE(sat)}$ vs. I_C

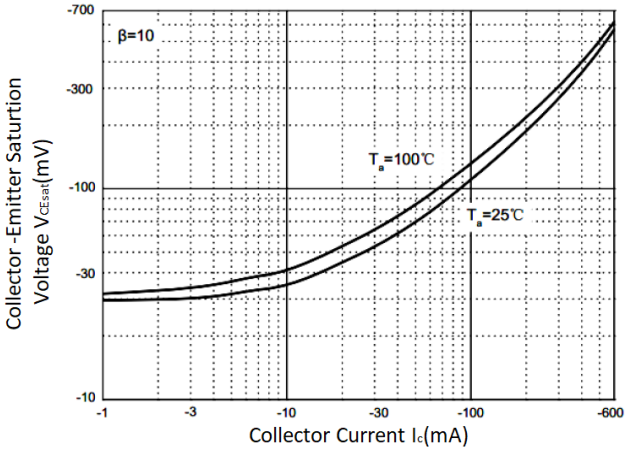


Figure 5. I_C vs. V_{BE}

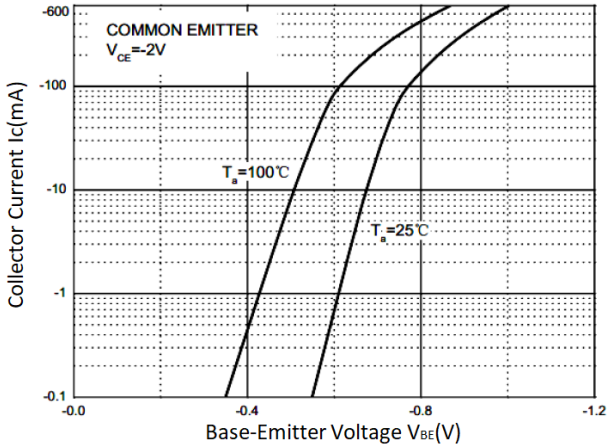


Figure 6. f_T vs. I_C

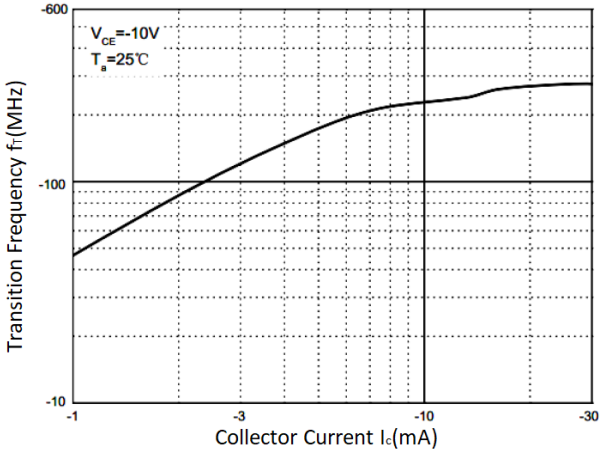


Figure 7. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}

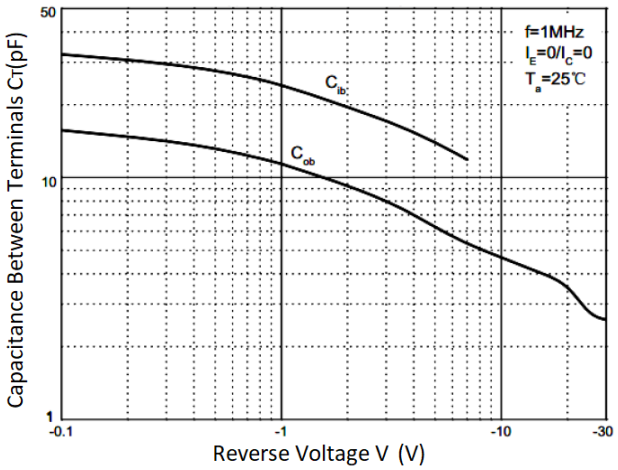
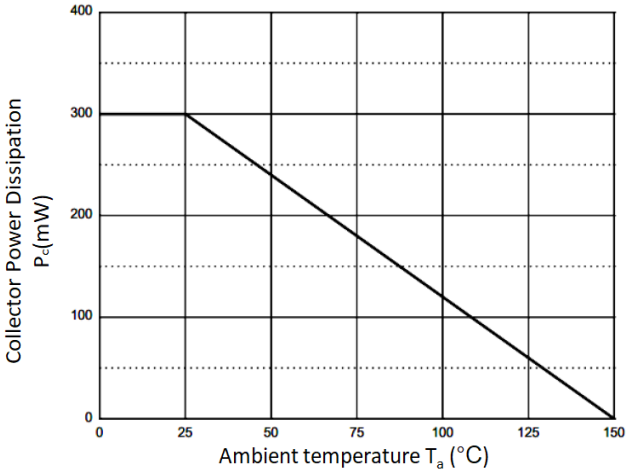
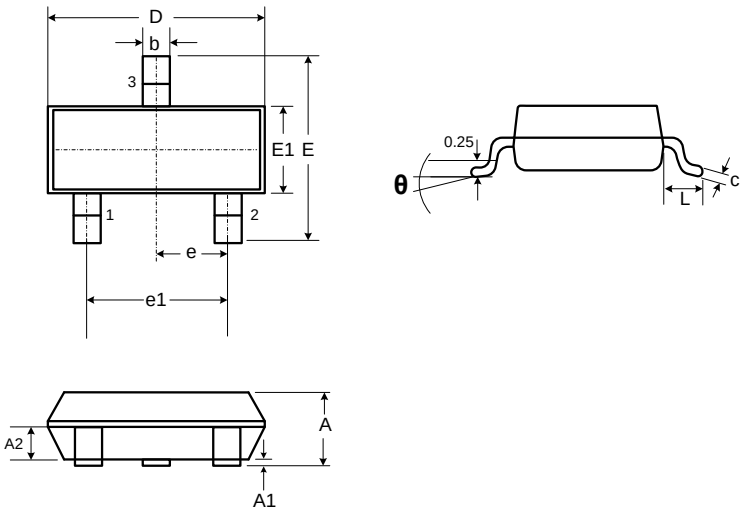


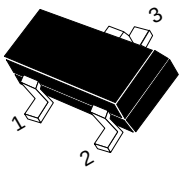
Figure 8. P_C vs. T_a



Outline Drawing – SOT-23

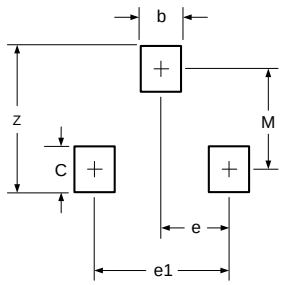
PACKAGE OUTLINE





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
A2	0.60	0.70	0.0236	0.0275
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	WT4403
Marking Code	2T

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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