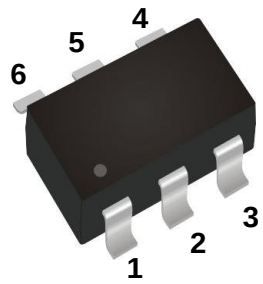
WT4401DW

Dual NPN Transistor

Features

- Epitaxial Planar Die Construction
- Ideal for Low Power Amplification and Switching

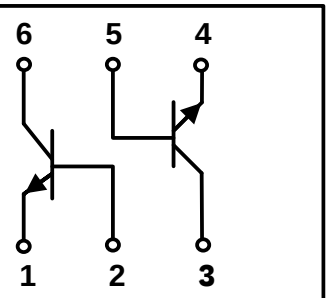


SOT-363-6L

Mechanical Characteristics

- SOT-363-6L Package
- Marking : Making Code
- RoHS Compliant

Schematic & PIN Configuration



SOT-363-6L(Top View)

Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	60	V
Collector Emitter Voltage	V_{CEO}	40	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	°C/W

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Electrical Characteristics (Tamb=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E = 0	60	-	-	V
Collector-emitter breakdown voltage[1]	$V_{(BR)CEO}$	I_C = 1mA, I_B = 0	40	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 100μA, I_C = 0	6	-	-	V
Collector cut-off current	I_{CBO}	V_{CB} = 50V, I_E = 0	-	-	100	nA
Collector cut off current	I_{CEO}	V_{CE} = 35V, I_B = 0	-	-	500	nA
Emitter cut-off current	I_{EBO}	V_{EB} = 5V, I_C = 0	-	-	100	nA
DC current gain	$h_{FE(1)}$	V_{CE} = 2V, I_C = 500mA	40	-	-	
	$h_{FE(2)}$	V_{CE} = 1V, I_C = 0.1mA	20	-	-	
	$h_{FE(3)}$	V_{CE} = 1V, I_C = 1mA	40	-	-	
	$h_{FE(4)}$	V_{CE} = 1V, I_C = 10mA	80	-	-	
	$h_{FE(5)}$	V_{CE} = 1V, I_C = 150mA	100	-	300	
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[1]	$V_{BE(sat)}$	I_C = 150mA, I_B = 15mA	-	-	0.95	V
		I_C = 500mA, I_B = 50mA	-	-	1.2	V
Transition frequency	f_T	V_{CE}=10V,I_C=20mA, f=100MHz	250	-	-	MHz
Delay time	t_d	V_{CC} = 30V, $V_{BE(off)}$ = -2V, 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

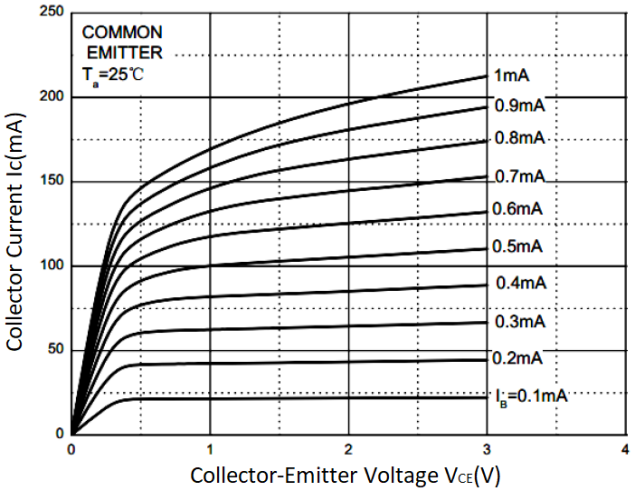


Figure 2. h_{FE} vs. **Ic**

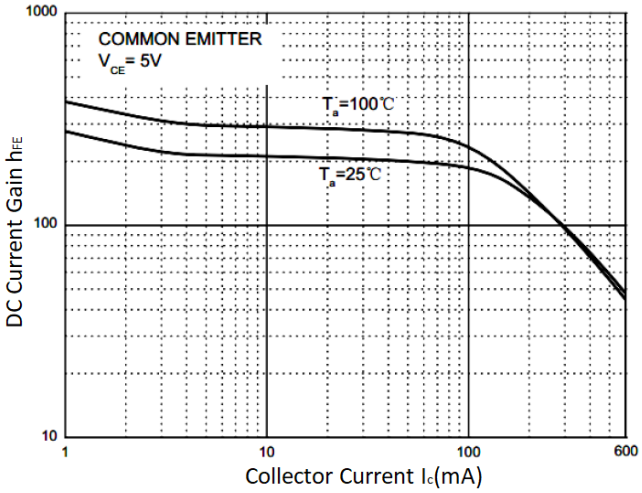


Figure 3. $V_{BE(sat)}$ vs. **Ic**

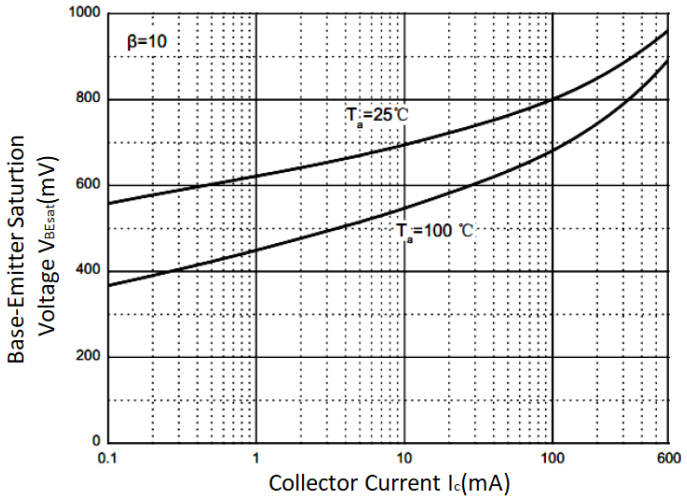


Figure 4. $V_{CE(sat)}$ vs. **Ic**

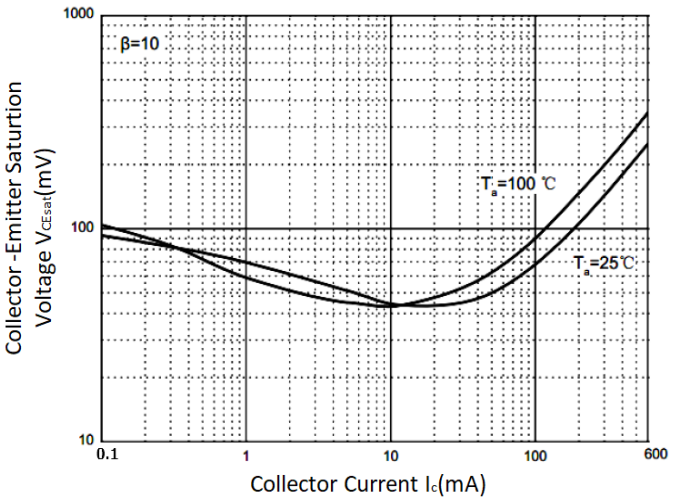


Figure 5. **Ic** VS. V_{BE}

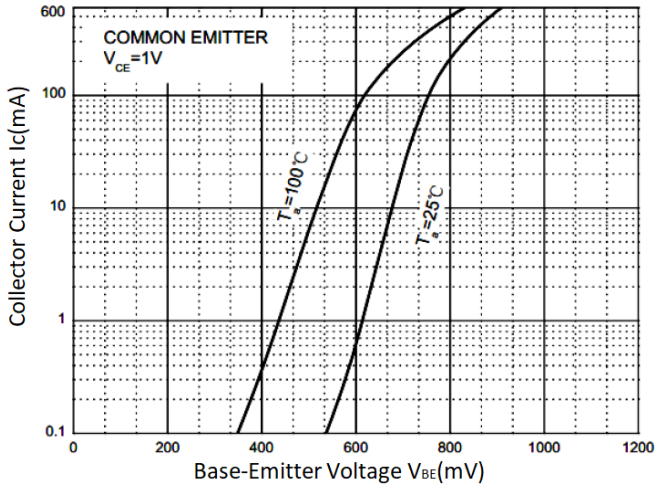


Figure 6. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}

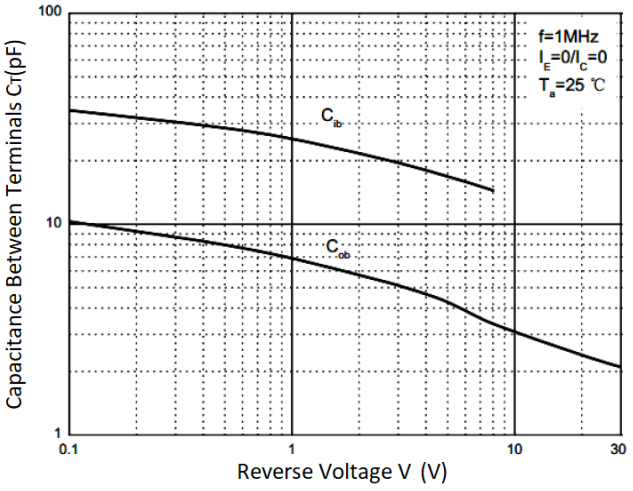


Figure 7. f_T vs. **Ic**

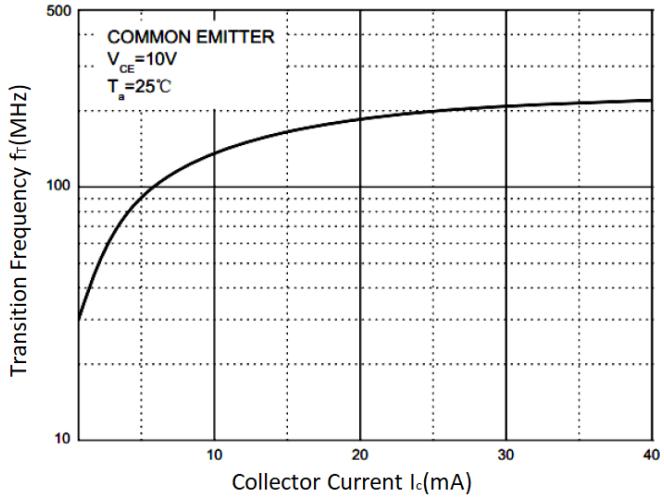
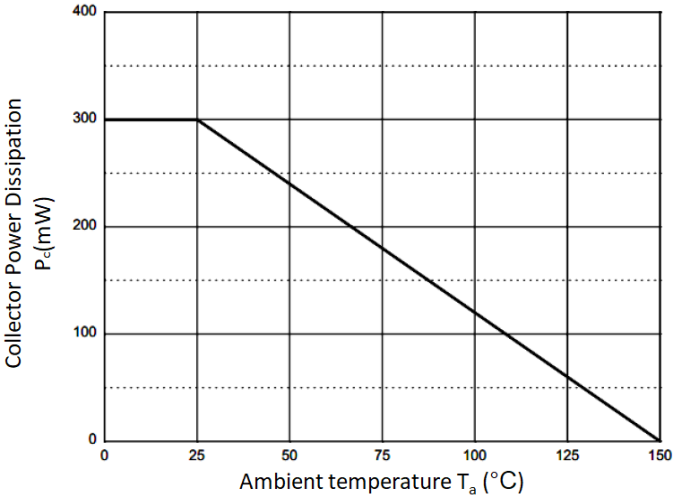
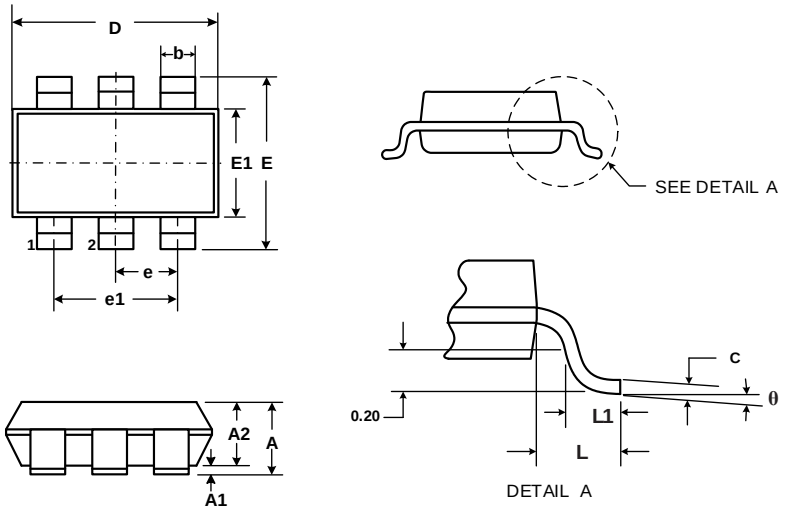


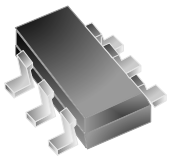
Figure 8. P_C vs. T_a



Outline Drawing – SOT-363-6L

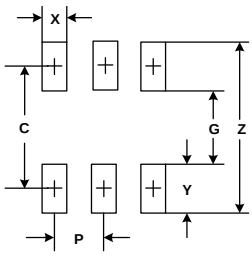
PACKAGE OUTLINE





SOT-363

DIMENSIONS				
SYMBO	MILLIMETERS		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
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E1	1.150	1.350	0.045	0.053
E	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	``0°	8°



DIMENSIONS		
DIM	INCHES	MILLIMETERS
Z	0.110	2.79
G	0.043	1.09
C	0.076	1.94
P	0.026 TYP	0.65 TYP
X	0.016	0.40
Y	0.033	0.85

Notes:

Controlling Dimension: Millimeter.

Marking Codes

Part Number	WT4401DW
Marking Code	K2X

Package Information

Qty：3k/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.