CYG WAYON
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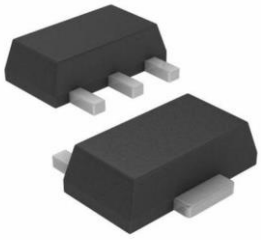
WT5401J

PNP Silicon Transistor

Features

- Complementary to WT5551J
- Switching and Amplification in High Voltage Applications Such as Telephony

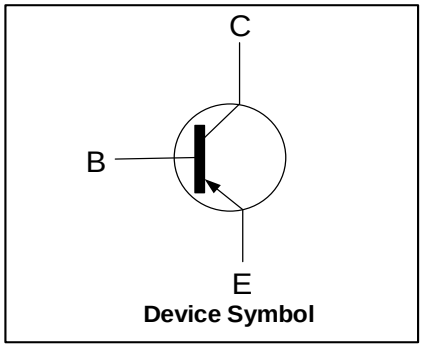


SOT-89

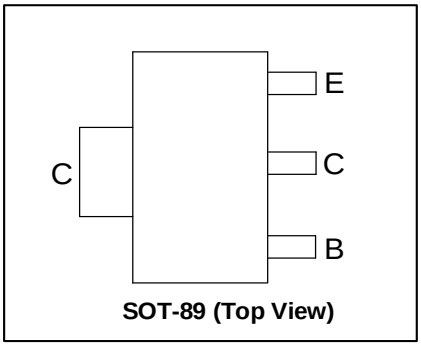
Mechanical Characteristics

- SOT-89 Package
- Marking : Making Code
- RoHS Compliant

Schematic & PIN Configuration



Device Symbol



SOT-89 (Top View)

Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	-160	V
Collector Emitter Voltage	V_{CEO}	-150	V
Emitter Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ 150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	°C/W

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	-160	-	-	V
Collector-emitter breakdown voltage [1]	$V_{(BR)CEO}$	I_C = -1mA, I_B = 0	-150	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA, I_C = 0	-5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB} = -120V, I_E = 0	-	-	-50	nA
Emitter cut-off current	I_{EBO}	V_{EB} = -3V, I_C = 0	-	-	-50	nA
DC current gain [1]	$h_{FE(1)}$	V_{CE} = -5V, I_C = -1mA	50	-	-	-
	$h_{FE(2)}$	V_{CE} = -5V, I_C = -10mA	60	-	300	-
	$h_{FE(3)}$	V_{CE} = -5V, I_C = -50mA	50	-	-	-
Collector-emitter saturation voltage [1]	$V_{CE(sat)}$	I_C = -10mA, I_B = -1mA	-	-	-0.2	V
		I_C = -50mA, I_B = -5mA	-	-	-0.5	V
Base-emitter saturation voltage [1]	$V_{BE(sat)}$	I_C = -10mA, I_B = -1mA	-	-	-1	V
		I_C = -50mA, I_B = -5mA	-	-	-1	V
Transition frequency	f_T	V_{CE}= -5V,I_C= -10mA,f=30MHz	100	-	-	MHz
Output Capacitance	Cob	V_{CB}=-10V, I_E=0, f=1MHZ	-	-	6	pF
Noise Fogure	NF	V_{CE}=-5V,I_C=-200uA,R_S=1Ω, f=10Hz to15.7kHz	-	-	8	dB

Note:

1. Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%

Typical Characteristics

Figure 1.Static Characteristics

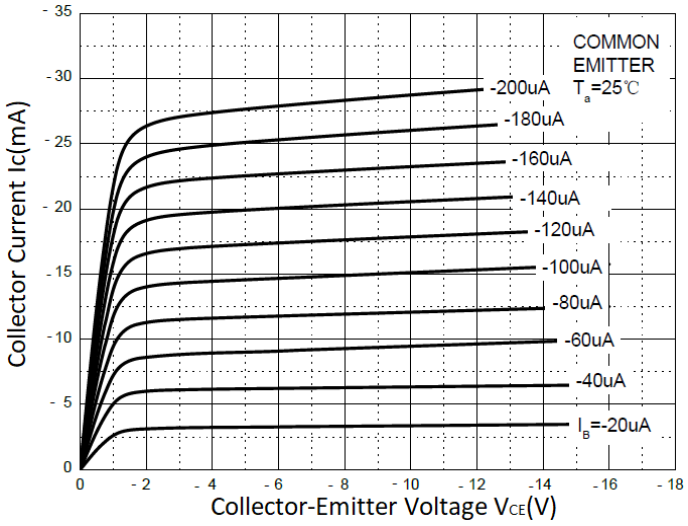


Figure 2. h_{FE} vs. I_C

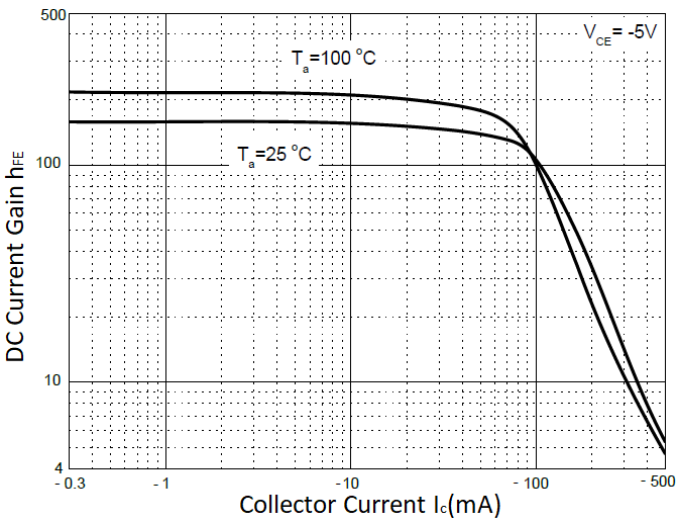


Figure 3. $V_{BE(sat)}$ vs. I_C

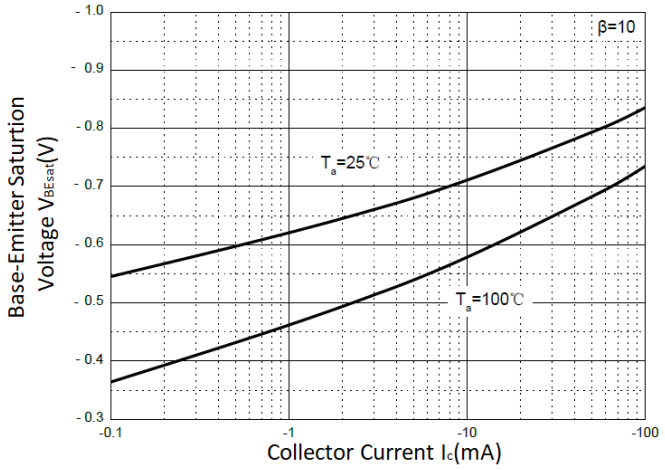


Figure 4. $V_{CE(sat)}$ vs. I_C

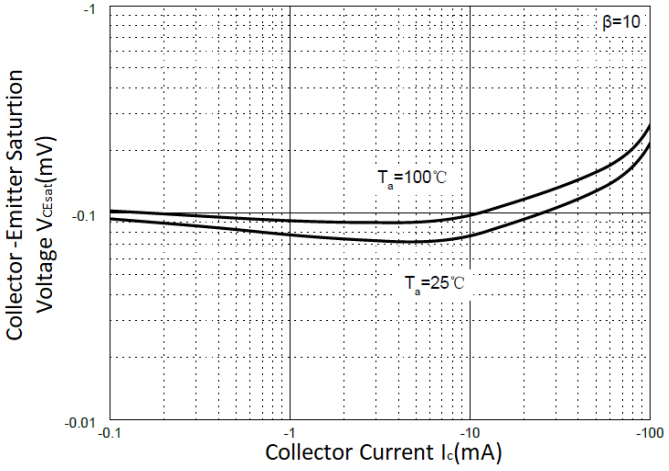


Figure 5. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}

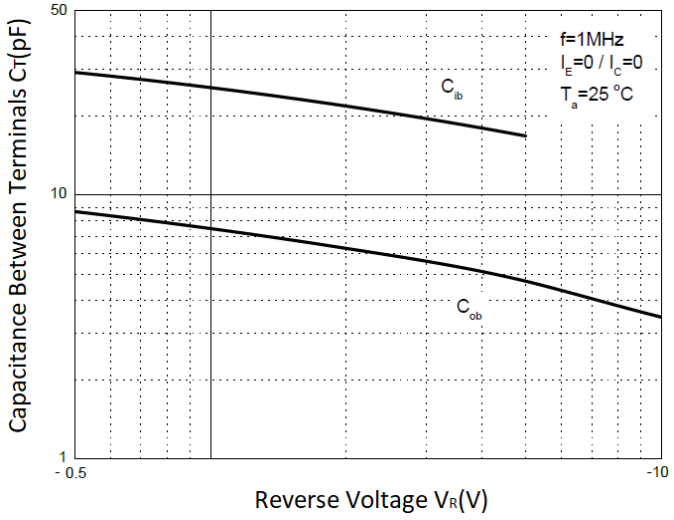


Figure 6. f_T vs. I_C

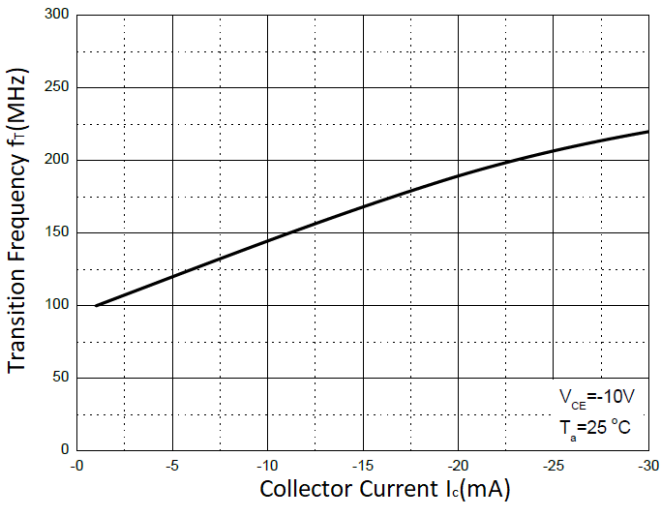
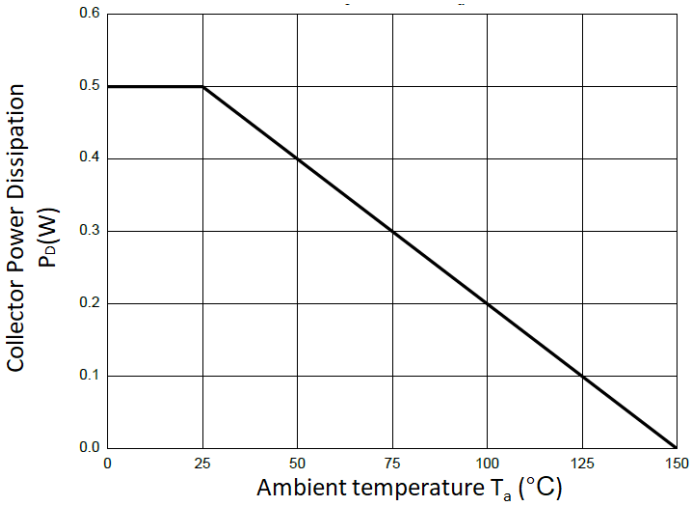
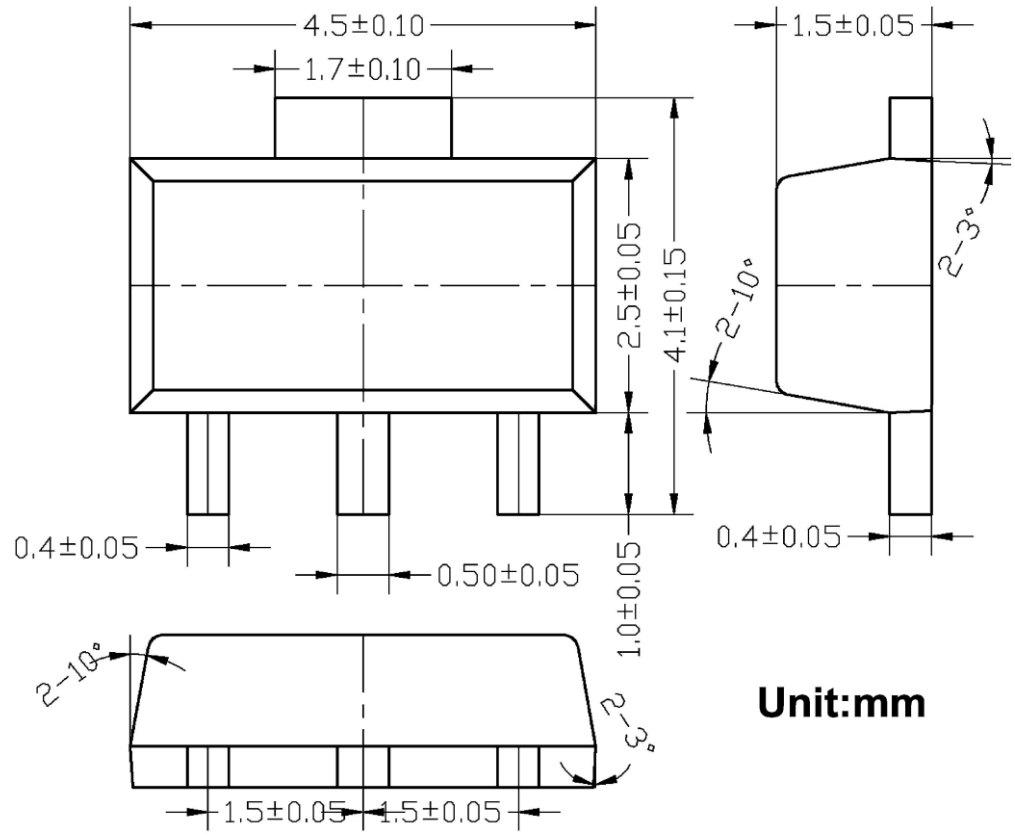


Figure 7. P_D vs. T_a



Outline Drawing – SOT-89

PACKAGE OUTLINE



Marking Codes

Part Number	WT5401J
Marking Code	5401

Package Information

Qty：1k/Reel

CONTACT INFORMATION

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