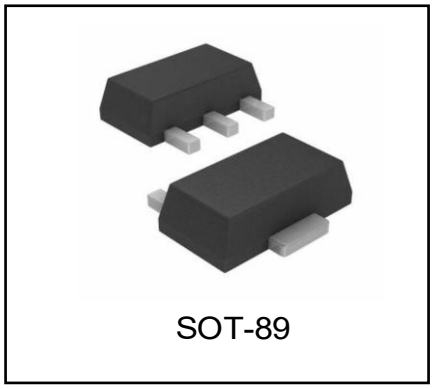
WT5401J

PNP Silicon Transistor

Features

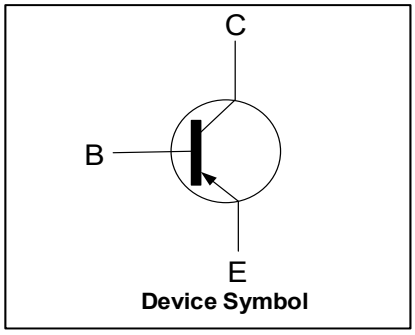
- Complementary to WT5551J
- Switching and Amplification in High Voltage Applications Such as Telephony

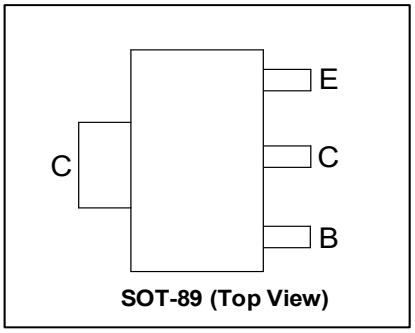


Mechanical Characteristics

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

Schematic & PIN Configuration





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

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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 = -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	-	5	-	pF
Noise Figure	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

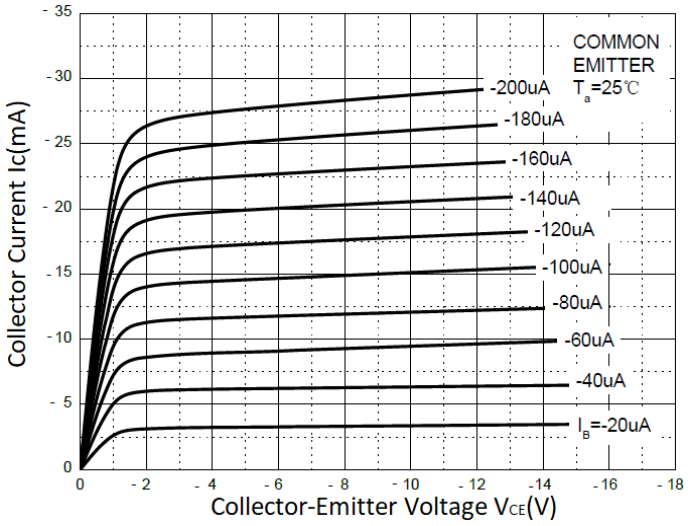


Figure 2. h_{FE} vs. I_C

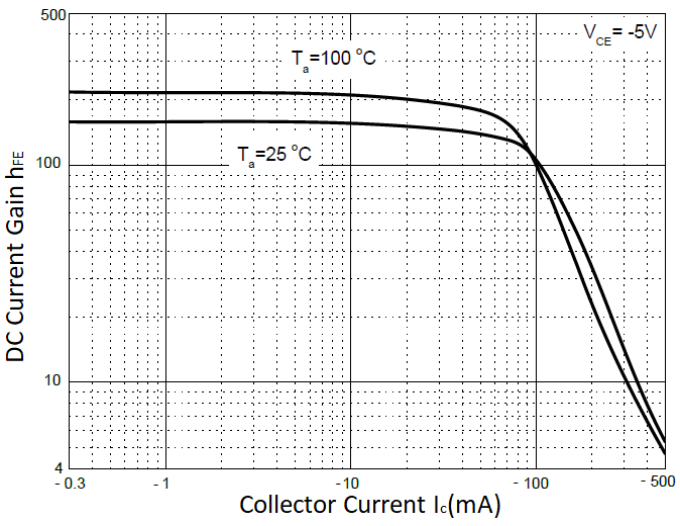


Figure 3. $V_{BE(sat)}$ vs. I_C

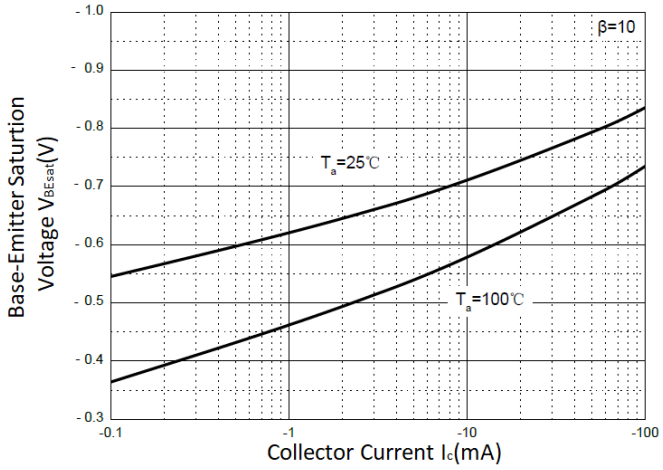


Figure 4. $V_{CE(sat)}$ vs. I_C

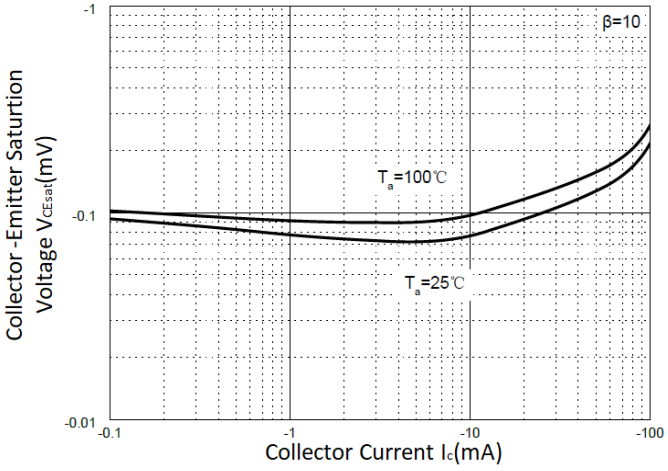


Figure 5. C_{ob} / C_{ib} vs. V_{CB} / V_{EB}

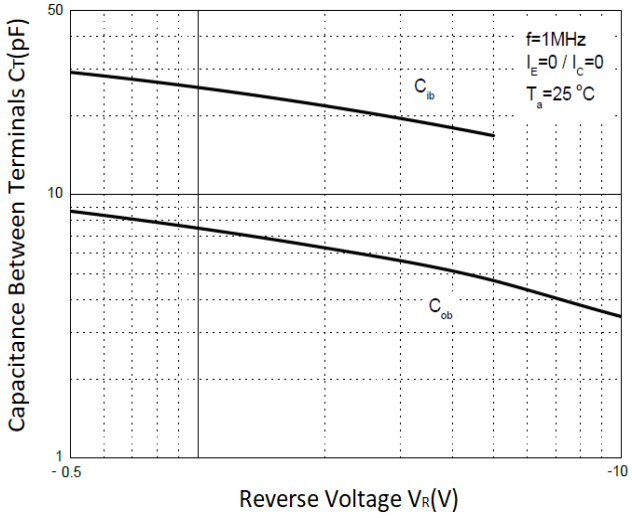


Figure 6. f_T vs. I_C

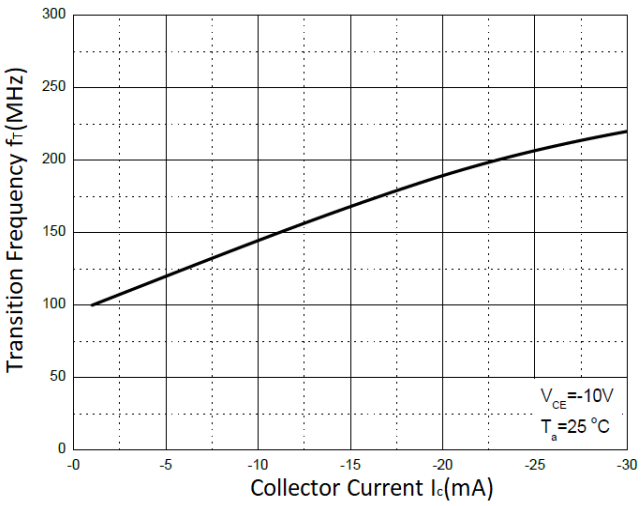
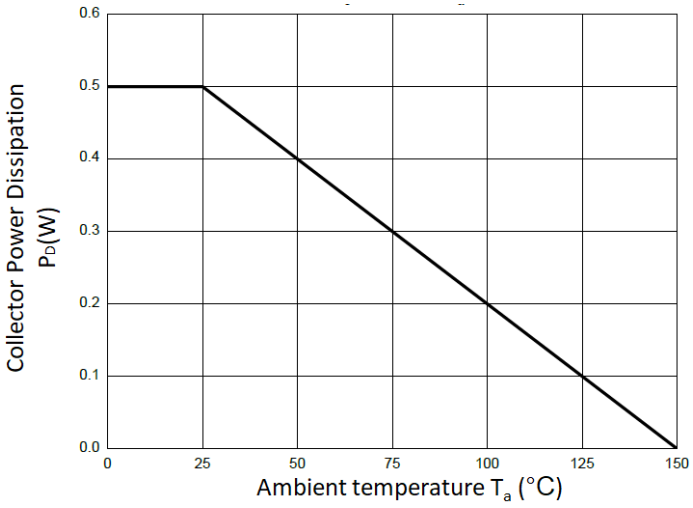
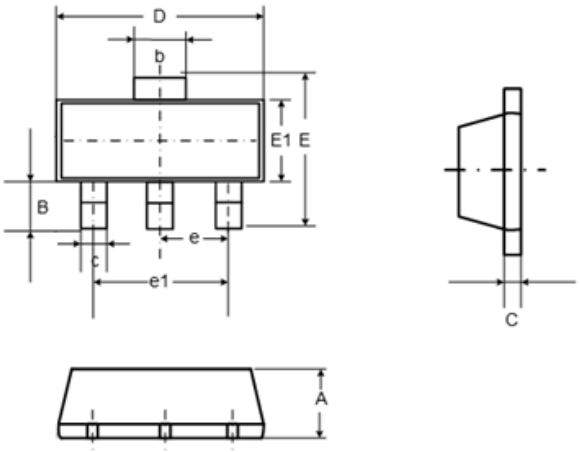


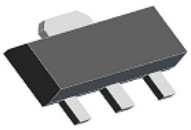
Figure 7. P_D vs. T_a



Outline Drawing – SOT-89

PACKAGE OUTLINE

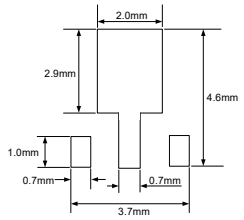




SOT-89-3L

SYMBOL	MILIMETER	
	MIN	MAX
A	1.40	1.60
B	0.85	1.20
b	1.50	1.80
C	0.35	0.44
c	0.32	0.52
E	3.94	4.30
E1	2.30	2.60
D	4.40	4.60
e	1.45	1.55
e1	2.80	3.20

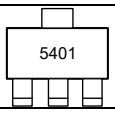
MOUNTING PAD



Notes

Controlling Dimension: Millimeter.

Marking Codes

Part Number	WT5401J
Marking Code	

Package Information

Qty：1k/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.