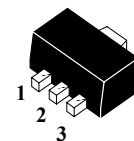


### PNP Epitaxial Planar Transistors

**Pb** Lead(Pb)-Free

SOT-89



1. BASE  
2. COLLECTOR  
3. EMITTER

#### Features:

- \* Low Collector Saturation Voltage
- \* High Spwvd Switching
- \* For Complementary Use With NPN Type WTM2222A

#### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

Rating	Symbol	Limits	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-60	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-0.6	A
Collector Power Dissipation	P <sub>D</sub>	1.2	W
Junction Temperature	T <sub>j</sub>	+150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°C

#### Device Marking

WTM2907A = 2907A , p2F

#### ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage I <sub>C</sub> =-10μA, I <sub>E</sub> =0	BV <sub>CBO</sub>	-60	-	-	V
Collector-Emitter Breakdown Voltage I <sub>C</sub> =-10mA, I <sub>B</sub> =0	BV <sub>CEO</sub>	-60	-	-	V
Emitter-Base Breakdown Voltage I <sub>E</sub> =-10μA, I <sub>C</sub> =0	BV <sub>EBO</sub>	-5	-	-	V
Collector Cutoff Current V <sub>CE</sub> =-50V, I <sub>E</sub> =0	I <sub>CBO</sub>	-	-	-10	nA
Collector Cutoff Current V <sub>CE</sub> =-30V, V <sub>BE</sub> =-0.5V	I <sub>CEX</sub>	-	-	-50	nA

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C Unless otherwise noted)**

Characteristic	Symbol	Min	Typ	Max	Unit
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**ON CHARACTERISTICS<sup>(1)</sup>**

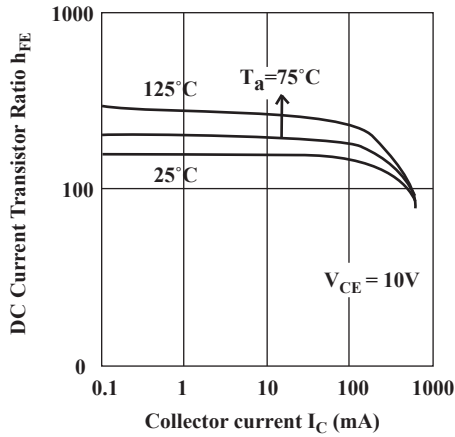
DC Current Gain V <sub>CE</sub> =-10V, I <sub>C</sub> =-0.1mA	h <sub>FE1</sub>	75	-	-	
V <sub>CE</sub> =-10V, I <sub>C</sub> =-1.0mA	h <sub>FE2</sub>	100	-	-	
V <sub>CE</sub> =-10V, I <sub>C</sub> =-10mA	h <sub>FE3</sub>	100	-	-	
V <sub>CE</sub> =-10V, I <sub>C</sub> =-150mA	h <sub>FE4</sub>	100	-	300	-
V <sub>CE</sub> =-10V, I <sub>C</sub> =-500mA	h <sub>FE5</sub>	50	-	-	
Collector-Emitter Saturation Voltage I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA	V <sub>CE(sat)1</sub>	-	-0.2	-0.4	V
I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA	V <sub>CE(sat)2</sub>	-	-0.5	-1.6	V
Base-Emitter Saturation Voltage I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA	V <sub>BE(sat)1</sub>	-	-	-1.3	V
I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA	V <sub>BE(sat)2</sub>	-	-	-2.6	mV

1. Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

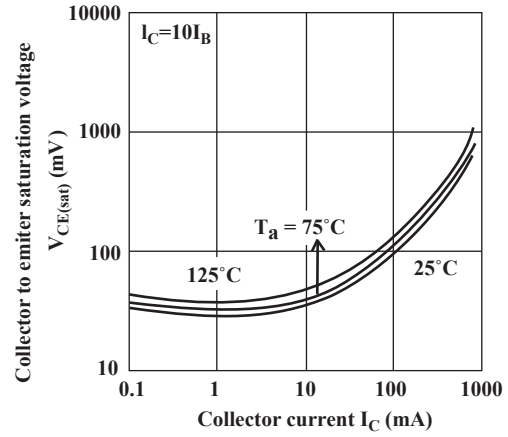
**DYNAMIC CHARACTERISTICS**

Transition Frequency V <sub>CE</sub> =-20V, I <sub>C</sub> =-50mA, f=100MHz	f <sub>T</sub>	200	-	-	MHz
Output Capacitance V <sub>CE</sub> =-10V, f=1MHz	C <sub>ob</sub>	-	-	8.0	pF

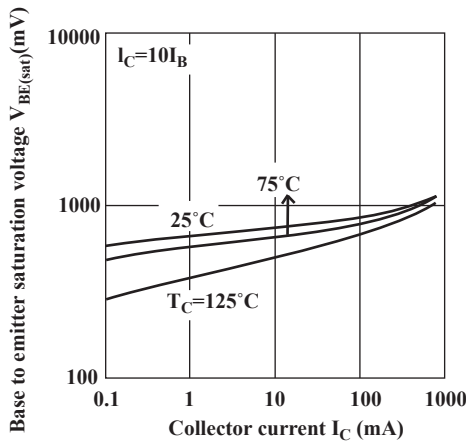
## ELECTRICAL CHARACTERISTIC CURVES



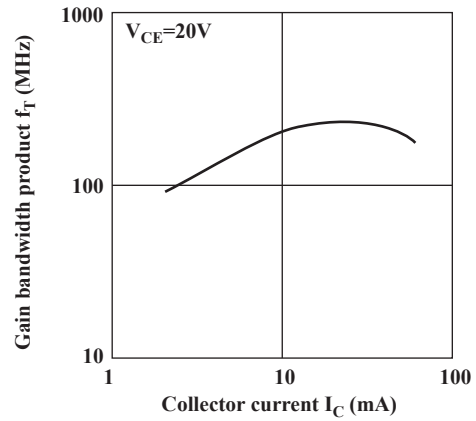
**Fig.1 Current Gain & Collector Current**



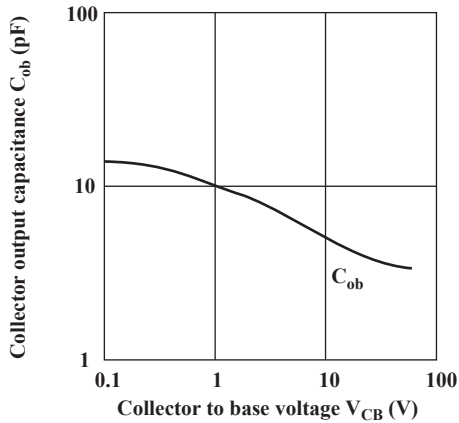
**Fig.2 Saturation Voltage & Collector Current**



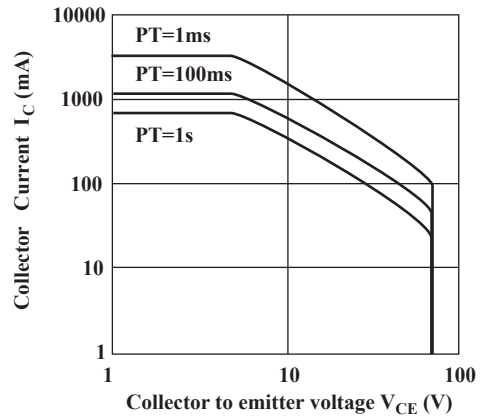
**Fig.3 Saturation Voltage & Collector Current**



**Fig.4 Gain Bandwidth Product & Collector Current**



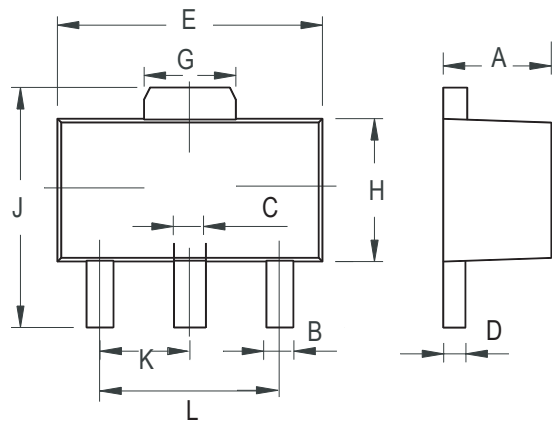
**Fig.5 Capacitance & Collector to Base Voltage**



**Fig.6 Safe Operating Area**

**SOT-89 Outline Dimensions**

unit:mm



<b>SOT-89</b>		
<b>Dim</b>	<b>Min</b>	<b>Max</b>
<b>A</b>	1.400	1.600
<b>B</b>	0.320	0.520
<b>C</b>	0.360	0.560
<b>D</b>	0.350	0.440
<b>E</b>	4.400	4.600
<b>G</b>	1.400	1.800
<b>H</b>	2.300	2.600
<b>J</b>	3.940	4.250
<b>K</b>	1.500TYP	
<b>L</b>	2.900	3.100