

## LOW FREQUENCY TRANSISTOR

## 2SC5585

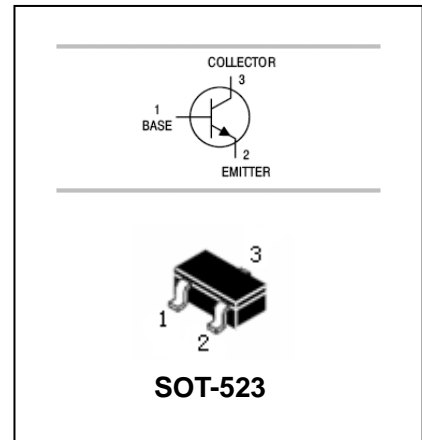
### FEATURES

- High current.
- Low  $V_{CE(sat)}$



### Applications

- For switching
- For muting



### ORDERING INFORMATION

Type No.	Marking	Package Code
2SC5585	BX	SOT-523

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	15	V
$V_{CEO}$	Collector-Emitter Voltage	12	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current	500	mA
$P_C$	Collector Power Dissipation	150	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55~150	$^\circ\text{C}$

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**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$BV_{CBO}$	$I_C=10\mu A$	15			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C=1mA$	12			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E=10\mu A$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=15V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{CB}=6V, I_E=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=2V, I_C=10mA$	270		680	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=200mA, I_B=10mA$		0.09	0.25	V
Transition frequency	$f_T$	$V_{CE}=2V, I_E=-10mA,$ $f=100MHz$		320		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0mA, f=1MHz$		7.5		pF

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### TYPICAL CHARACTERISTICS

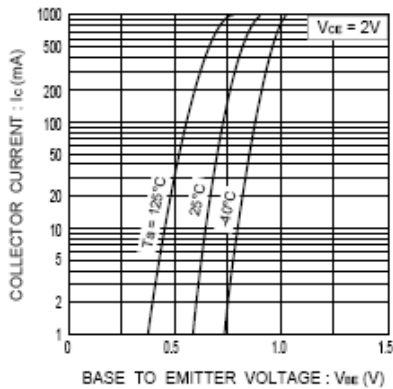


Fig.1 Grounded emitter propagation characteristics

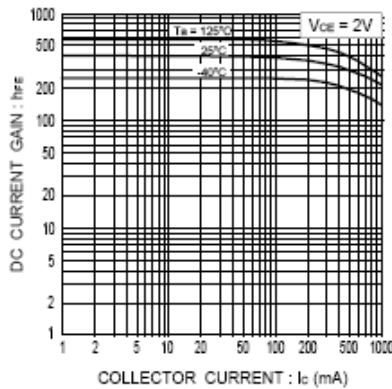


Fig.2 DC current gain vs. collector current

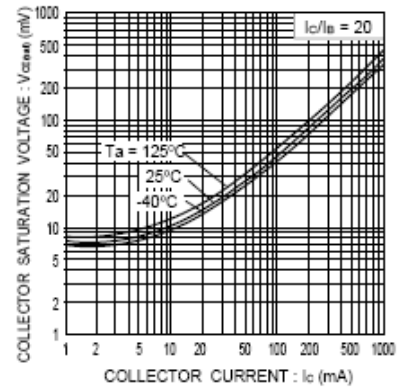


Fig.3 Collector-emitter saturation voltage vs. collector current ( I )

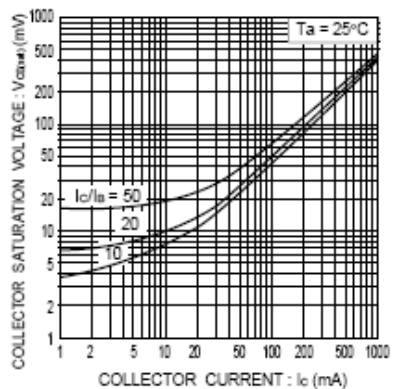


Fig.4 Collector-emitter saturation voltage vs. collector current ( II )

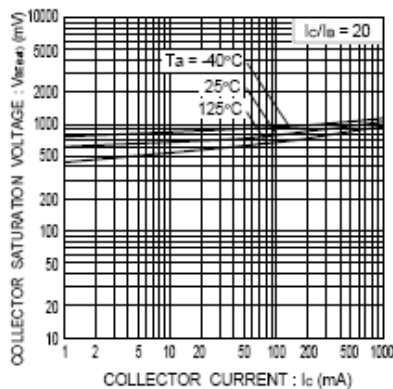


Fig.5 Base-emitter saturation voltage vs. collector current

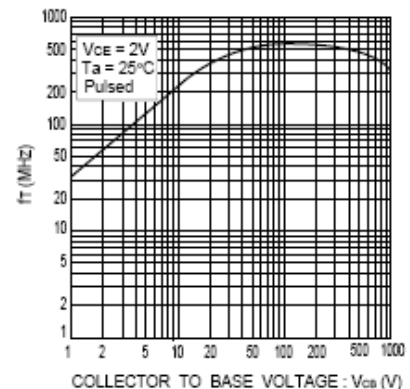


Fig.6 Collector output capacitance Emitter input capacitance vs. base voltage

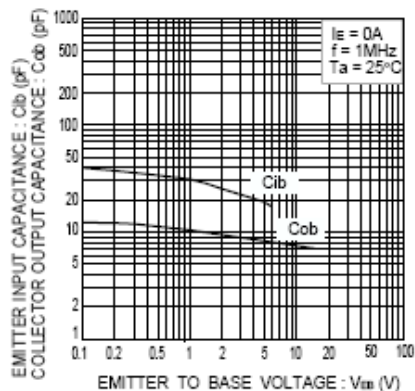


Fig.7 Collector output capacitance vs collector-base voltage Emitter input capacitance vs emitter-base voltage

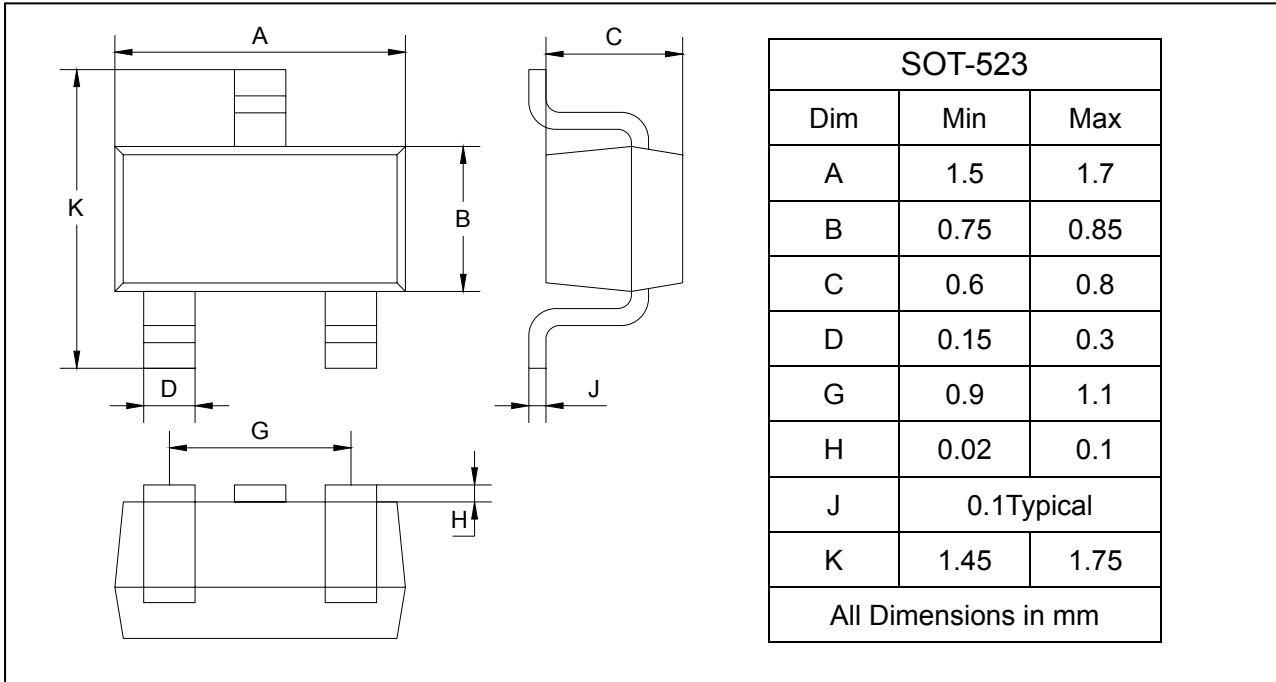
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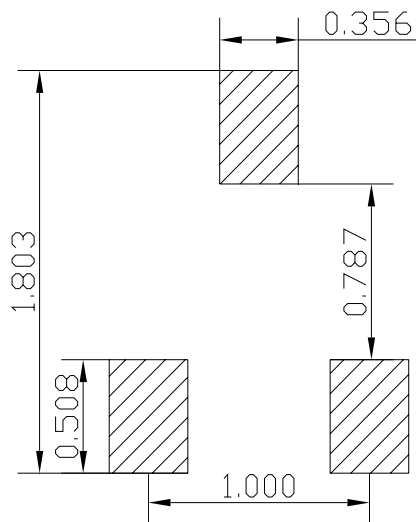
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

Device	Package	Shipping
2SC5585	SOT-523	3000/Tape&Reel

[www.s-manuals.com](http://www.s-manuals.com)