



LOW FREQUENCY TRANSISTOR

2SC5585

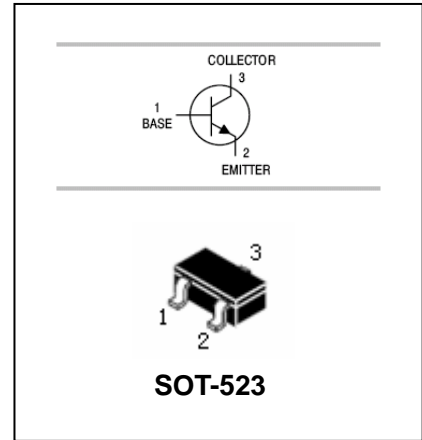
FEATURES

- 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 to +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	μA
Emitter cut-off current	I_{EBO}	$V_{CB}=6V, I_E=0$			0.1	μA
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

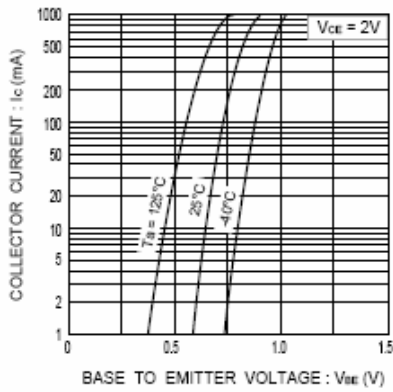


Fig.1 Grounded emitter propagation characteristics

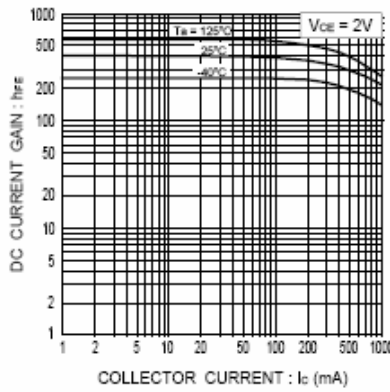


Fig.2 DC current gain vs. collector current

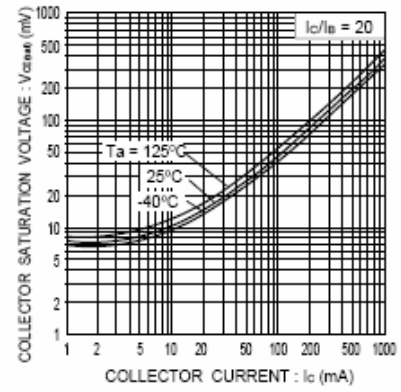


Fig.3 Collector-emitter saturation voltage vs. collector current (I)

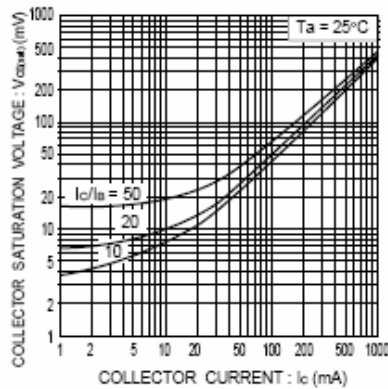


Fig.4 Collector-emitter saturation voltage vs. collector current (II)

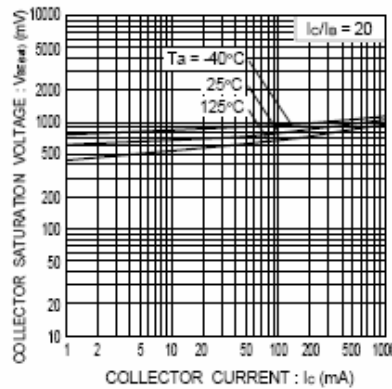


Fig.5 Base-emitter saturation voltage vs. collector current

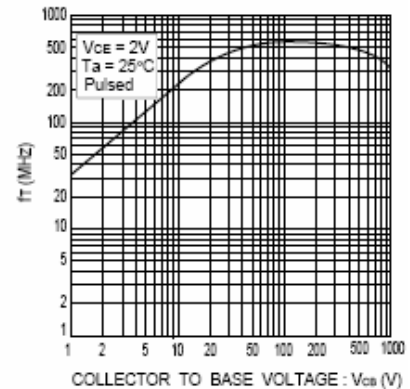


Fig.6 Collector output capacitance Emitter input capacitance vs. base voltage

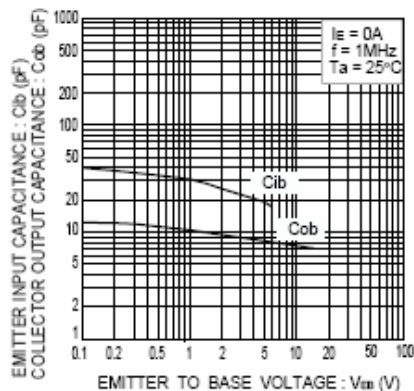


Fig.7 Collector output capacitance vs collector-base voltage Emitter input capacitance vs emitter-base voltage



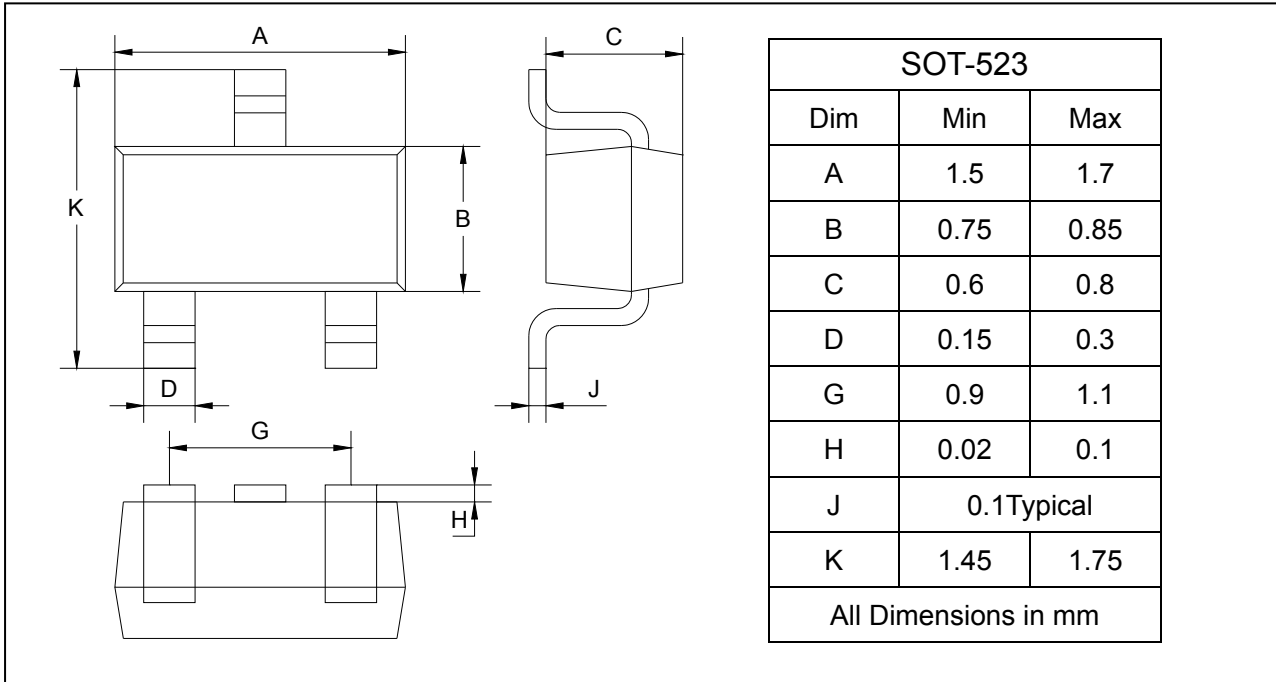
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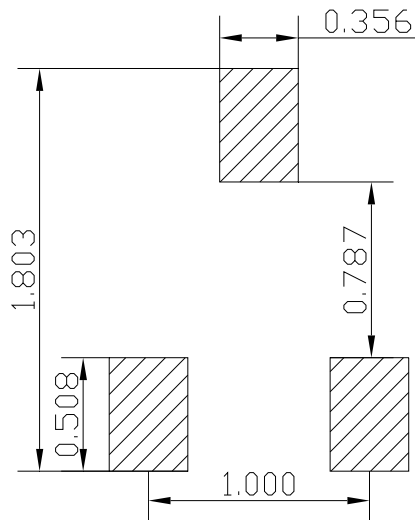
PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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