



PNP Silicon Epitaxial Planar Transistor

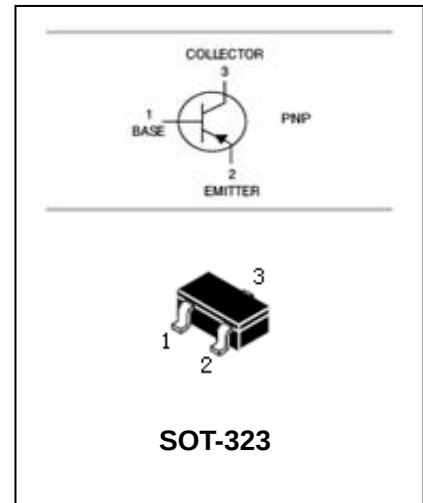
2SA1586

FEATURES

- High voltage and high current.
- Excellent H_{FE} Linearity.
- High h_{FE} linearity.
- Complementary to 2SC4116.



Lead-free



APPLICATIONS

- Audio frequency general purpose amplifier applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1586	SO/SY/SG	SOT-323

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-150	mA
P_C	Collector Dissipation	200	mW
T_J, T_{stg}	Junction and Storage Temperature	-55 to +125	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -2mA$	70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.1	-0.3	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -1mA$	80			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4	7	pF

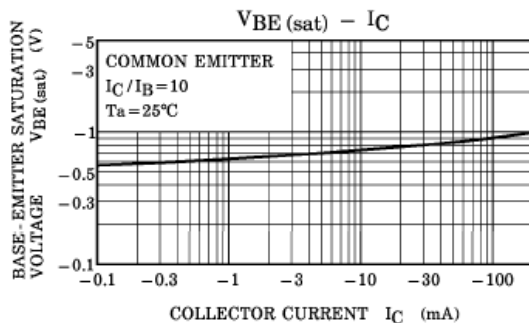
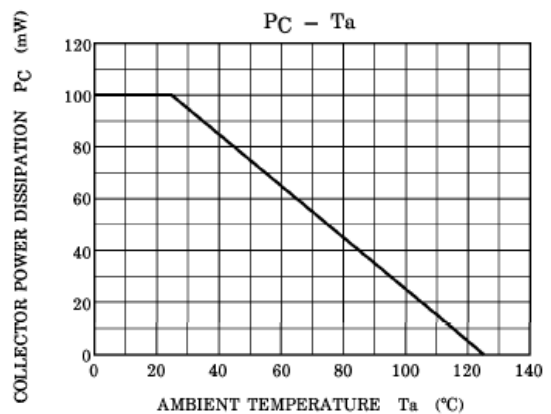
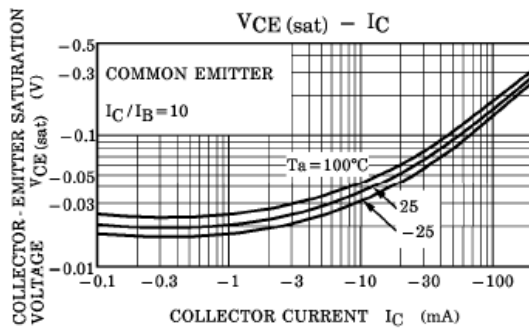
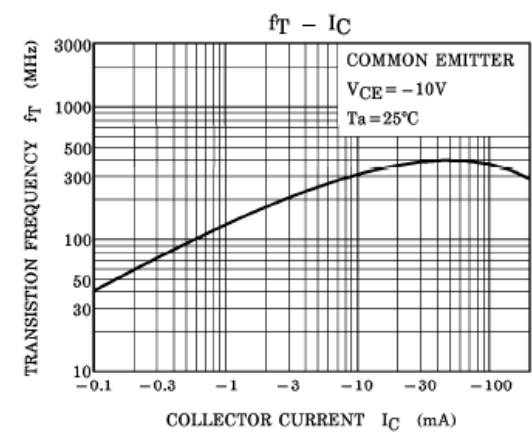
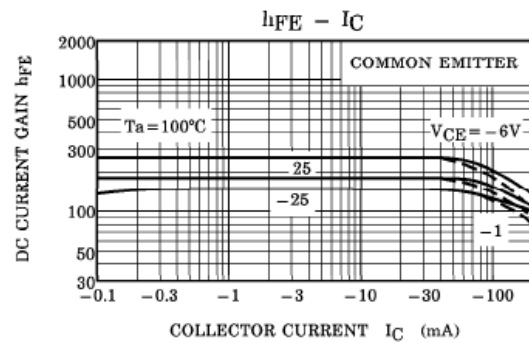
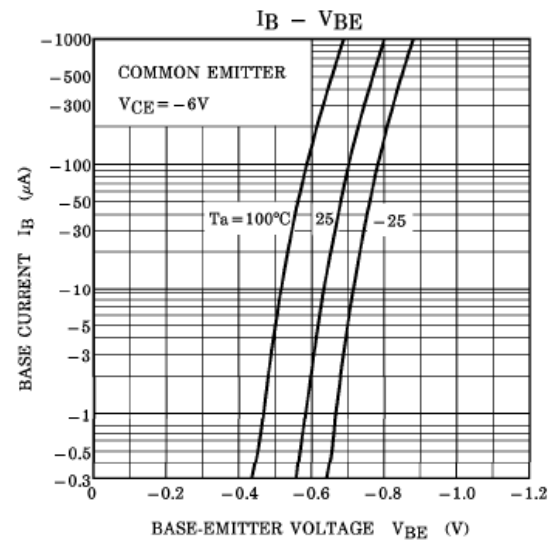
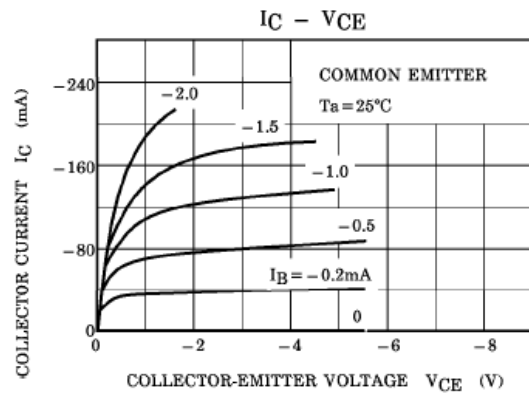
CLASSIFICATION OF h_{FE}

Rank	O	Y	GR
Range	70-140	120-240	200-400
marking	SO	SY	SG

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



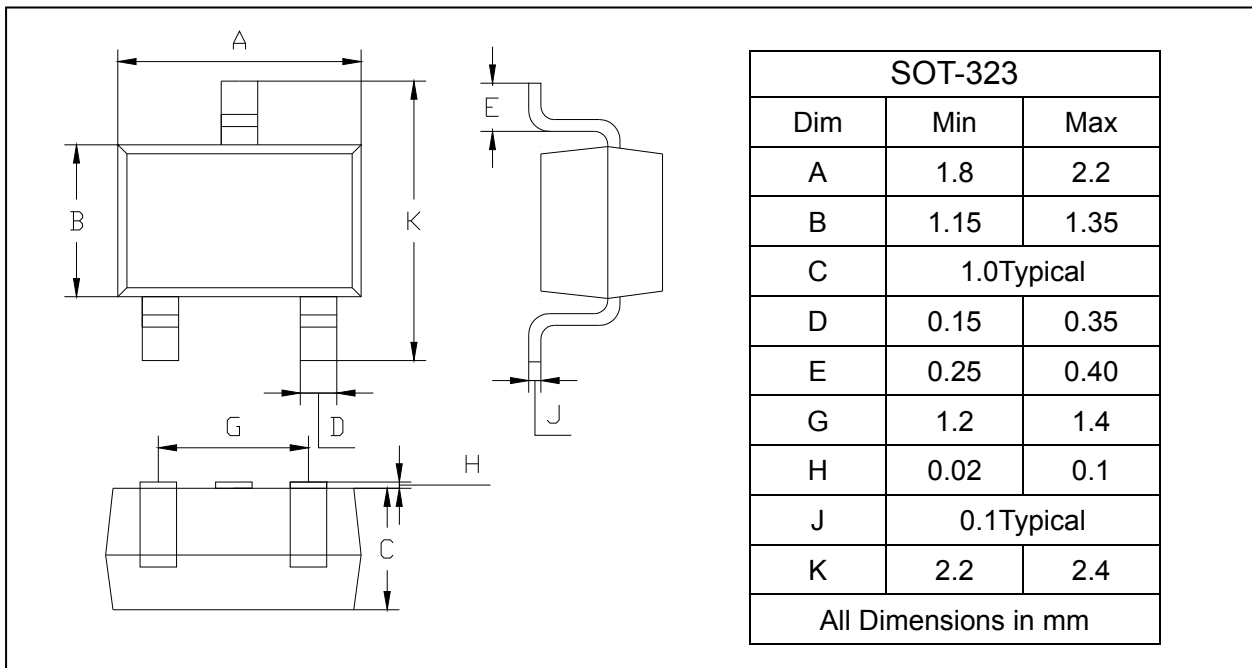
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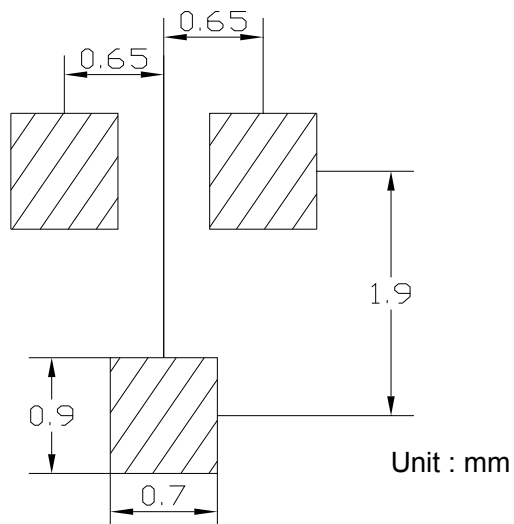
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SA1586	SOT-323	3000/Tape&Reel