

Silicon Epitaxial Planar Transistor

2SA733

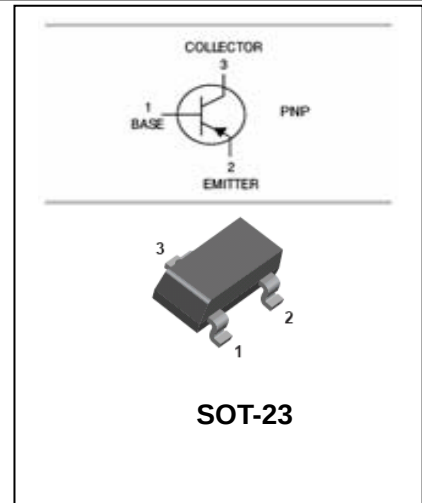
FEATURES

- Excellent h_{FE} Linearity.
- Power dissipation: $P_D=250mW$.
- High h_{FE} .



APPLICATIONS

- Designed for use in driver stage of amplifier.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SA733	CS	SOT-23

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-60	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	250	mW
T_j, T_{stg}	Junction and Storage Temperature	-55~150	$^{\circ}C$

Silicon Epitaxial Planar Transistor**2SA733****ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu A, I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	120		475	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.18	-0.3	V
Base-emitter on voltage	V_{BE}	$V_{CE} = -6V, I_C = -1.0mA$	-0.50	-0.62	-0.80	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -10mA$	50	180		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		2.8		pF
Noise figure	NF	$V_{CE} = -6V, I_C = -0.3mA$ $f = 100Hz$		6	20	dB

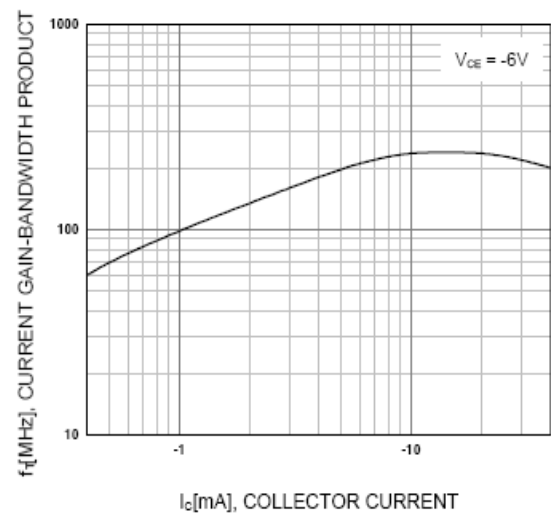
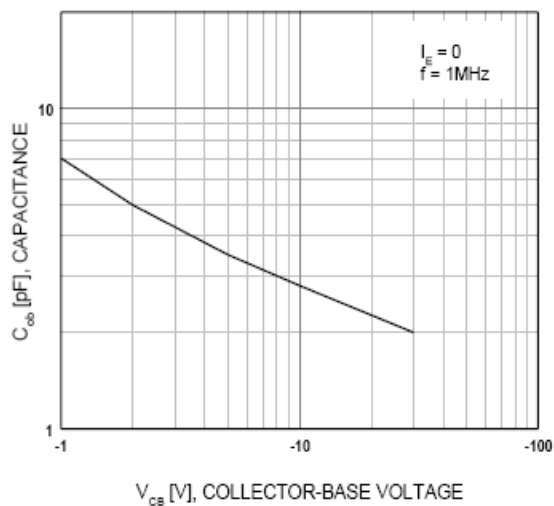
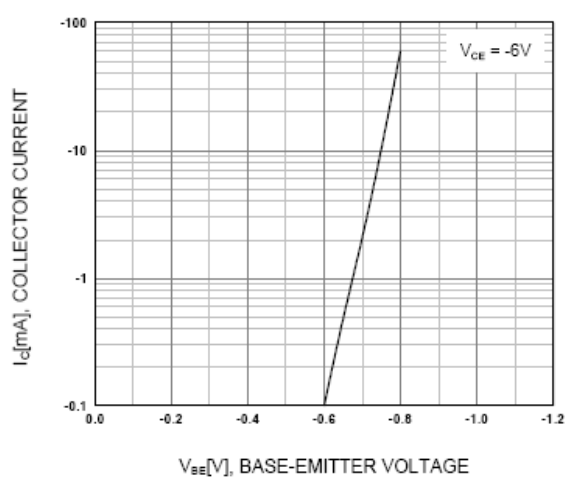
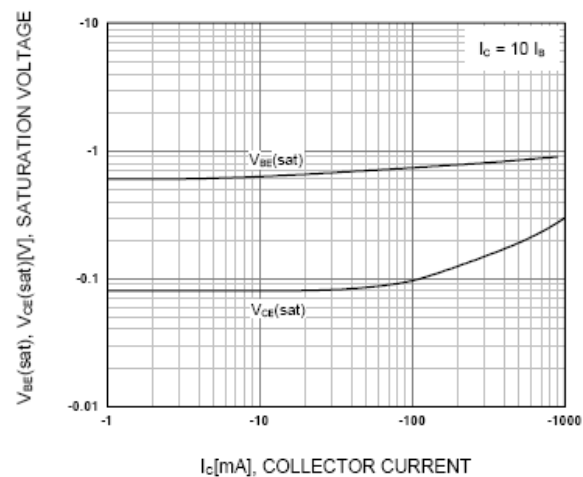
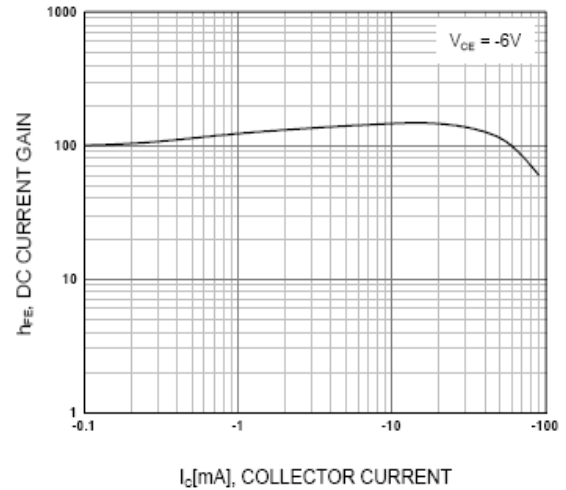
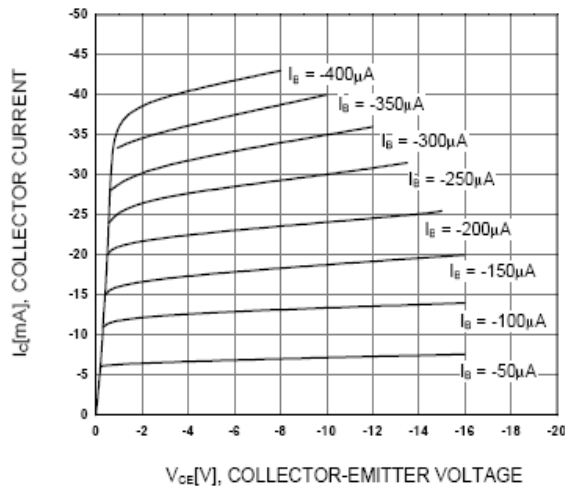
CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	120-200	200-475

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



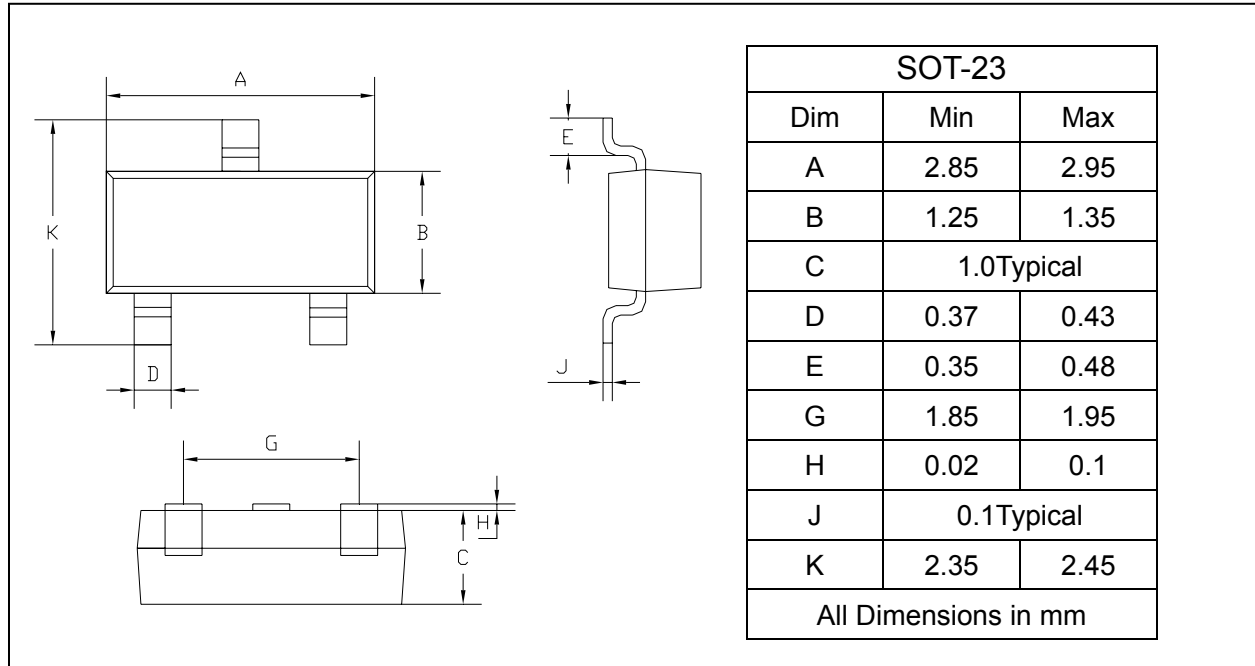
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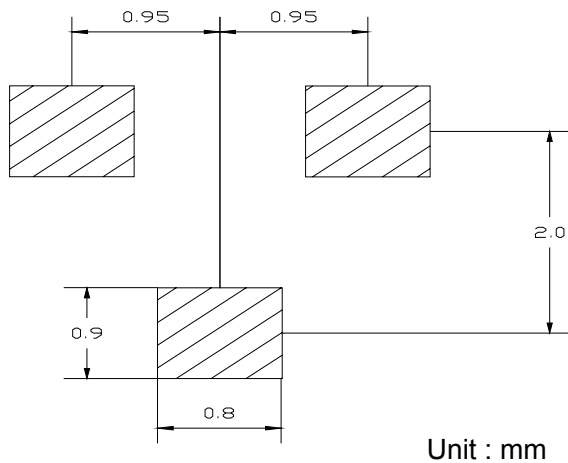
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SA733	SOT-23	3000/Tape&Reel