

## Silicon Epitaxial Planar Transistor

## 2SA733

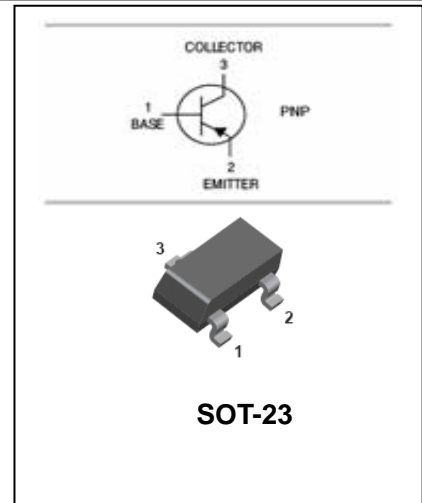
### FEATURES

- 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	-100	mA
$P_C$	Collector Dissipation	250	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	$^\circ C$



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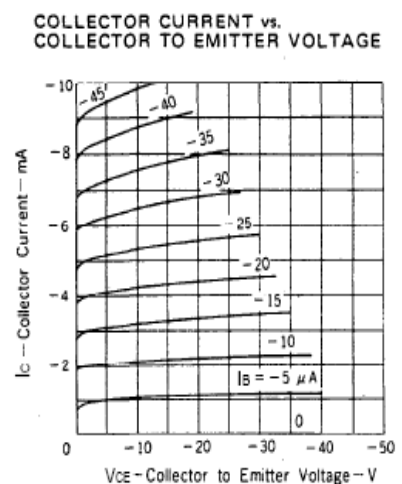
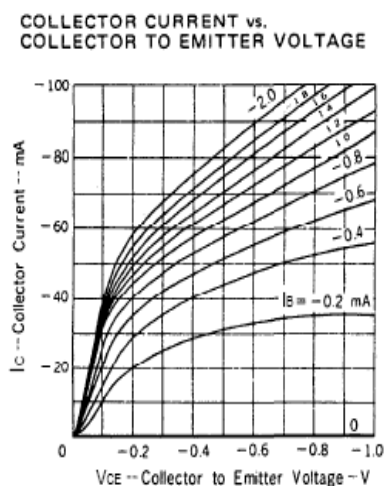
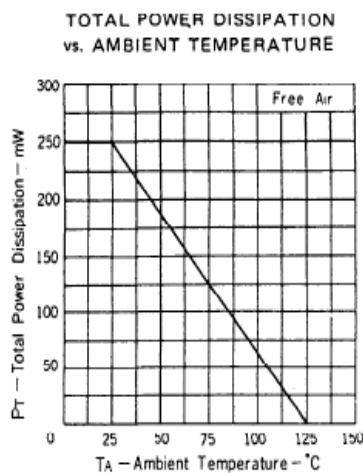
**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu A, I_E = 0$	-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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = -6V, I_C = -1mA$	90	200	600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.18	-0.3	V
Base-emitter on voltage	$V_{BE}$	$V_{CE} = -6V, I_C = -1.0mA$	-0.58	-0.62	-0.68	V
Transition frequency	$f_T$	$V_{CE} = -6V, I_C = -10mA$		180		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4.5		pF

**CLASSIFICATION OF  $h_{FE(1)}$**

Rank	R	Q	P	E
Range	90-180	135-270	200-400	300-600

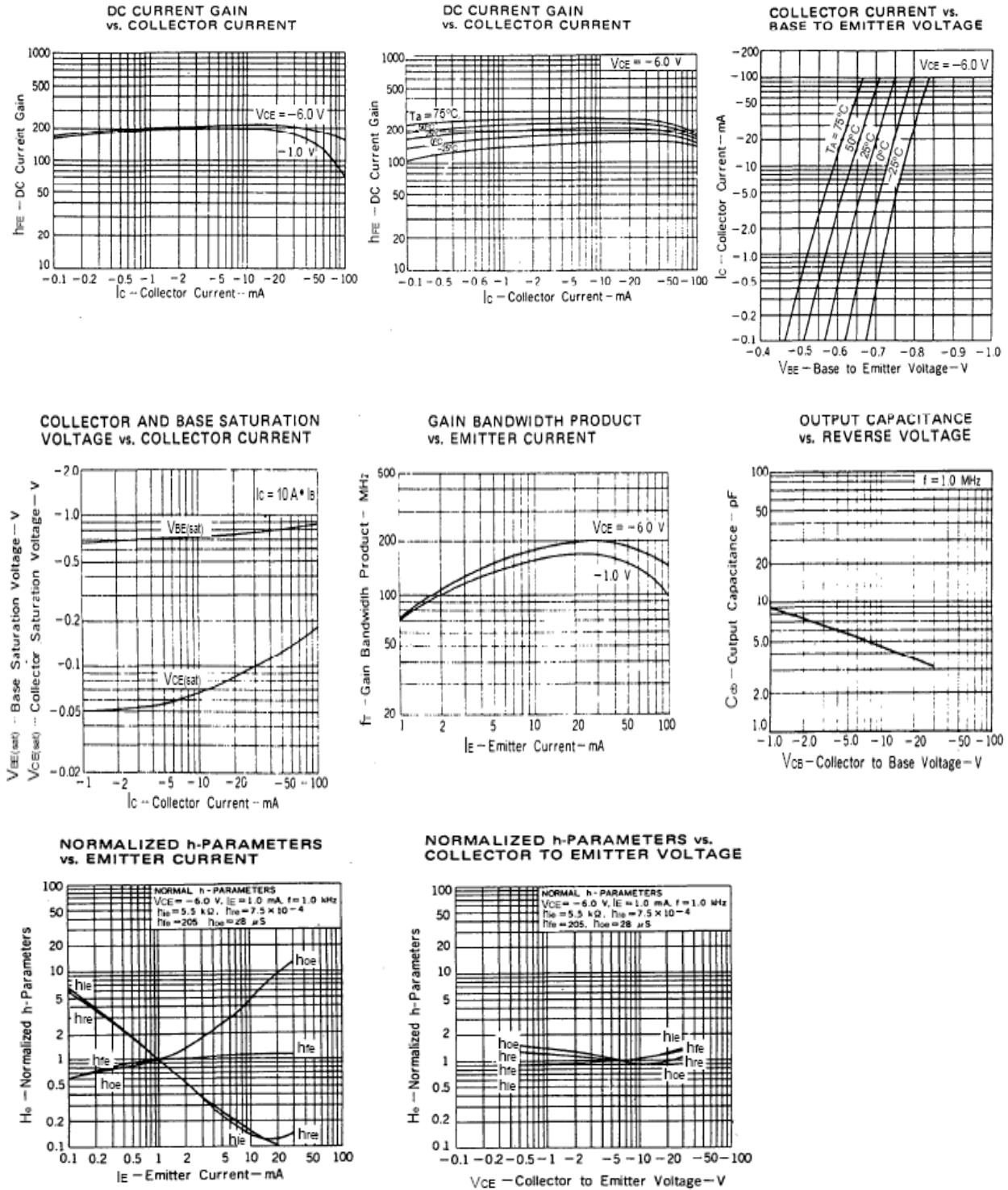
**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**





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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