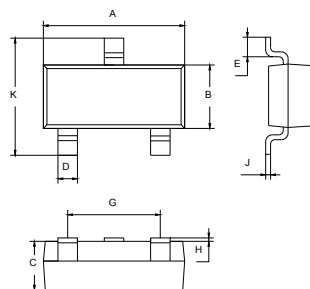
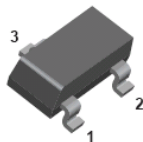


### FEATURES

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

### APPLICATIONS

- Designed for use in driver stage of amplifier.



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	Ty1.0 pical	
D	Ty0.4 pical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	Ty0.1 pical	
K	2.20	2.60
All Dimensions in mm		

### ORDERING INFORMATION

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

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

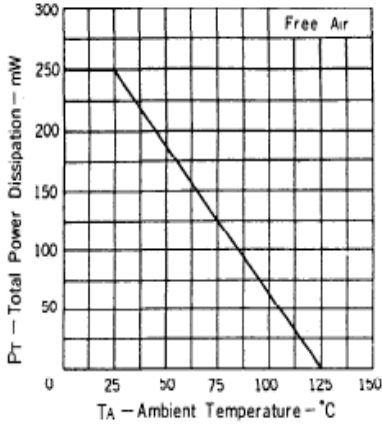
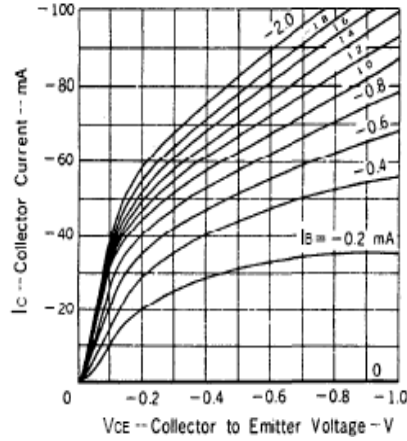
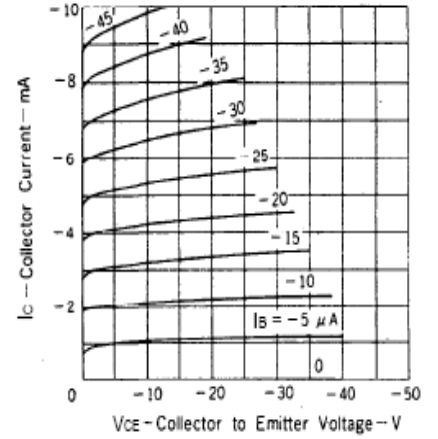
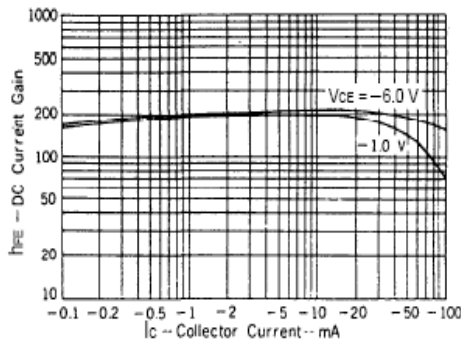
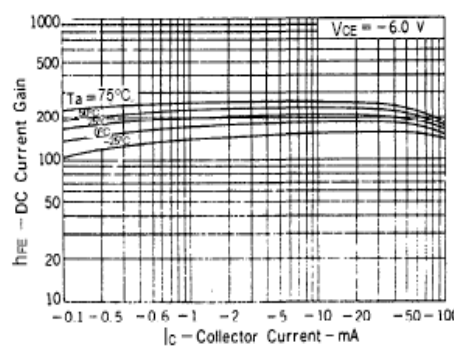
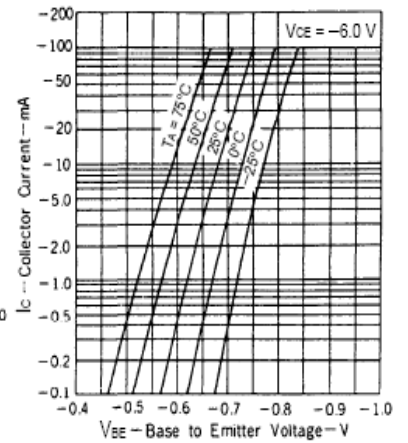
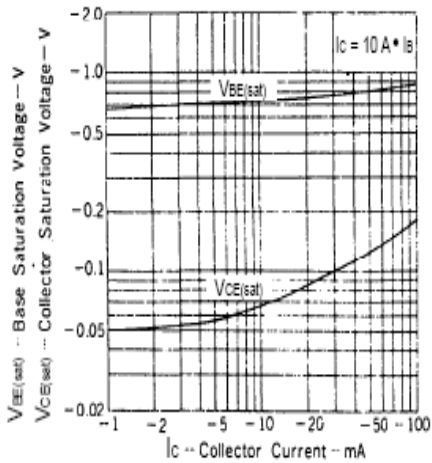
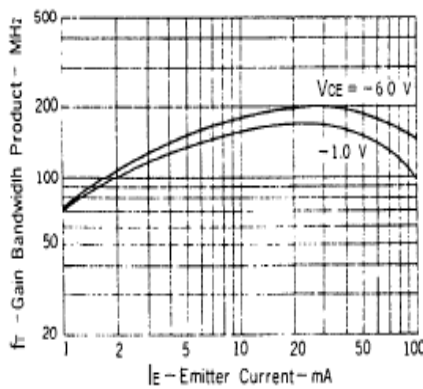
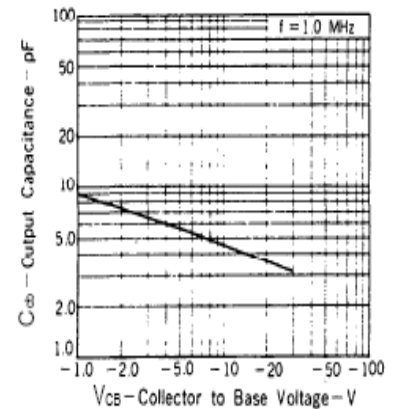
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-100	mA
$P_C$	Collector Dissipation	250	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	$^\circ C$

### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified

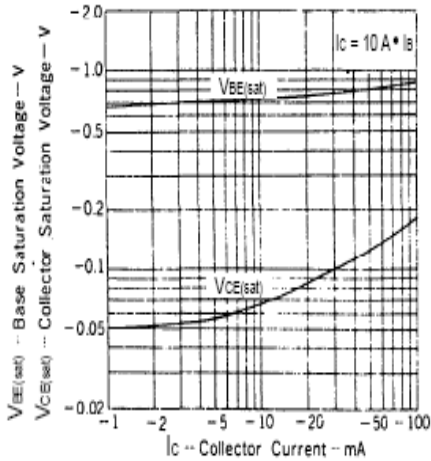
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-50\mu A, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-50\mu A, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-60V, I_E=0$			-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 $h_{FE(1)}$

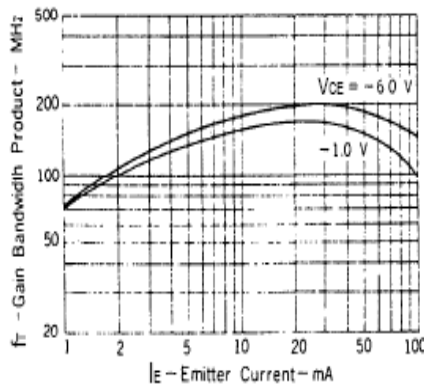
Rank	R	Q	P	E
Range	90-180	135-270	200-400	300-600

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**
**TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE**

**COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE**

**COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE**

**DC CURRENT GAIN vs. COLLECTOR CURRENT**

**DC CURRENT GAIN vs. COLLECTOR CURRENT**

**COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE**

**COLLECTOR AND BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT**

**GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT**

**OUTPUT CAPACITANCE vs. REVERSE VOLTAGE**


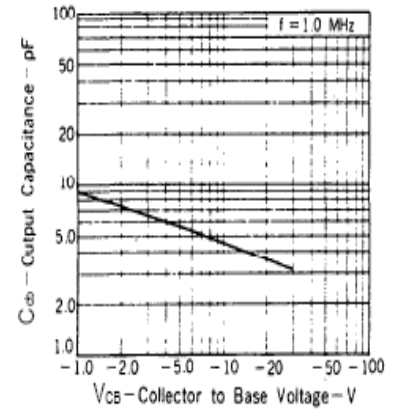
**COLLECTOR AND BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT**



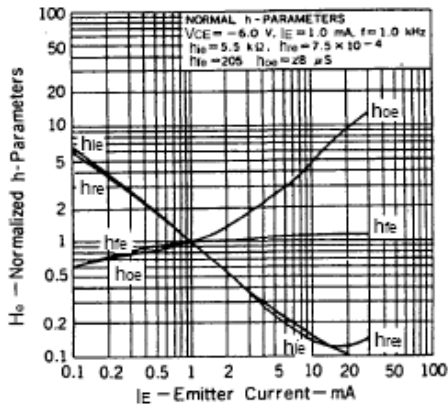
**GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT**



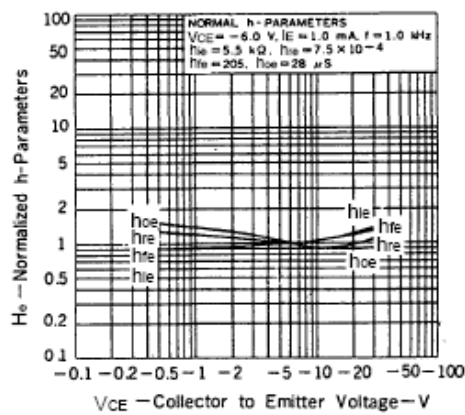
**OUTPUT CAPACITANCE vs. REVERSE VOLTAGE**



**NORMALIZED h-PARAMETERS vs. EMITTER CURRENT**



**NORMALIZED h-PARAMETERS vs. COLLECTOR TO EMITTER VOLTAGE**



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