

**FEATURES**

Collector-Base Voltage  
Complement to 2SC945

**2SA733(PNP)**

MARKING: CS

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	-60	V
Collector-Emitter Voltage	$V_{CEO}$	-50	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current -Continuous	$I_C$	-015	A
Collector Power Dissipation	$P_C$	0.2	W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C



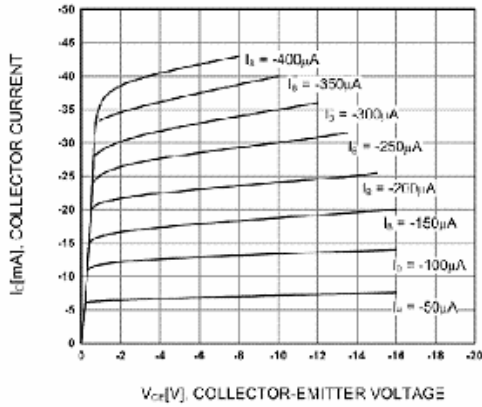
ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C = -5\mu A, I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E = -50\mu A, I_C = 0$	-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	$h_{FE}$	$V_{CE} = -6V, I_C = -1mA$	120		475	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.18	-0.3	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE} = -6V, I_C = -1.0mA$	-0.58	-0.62	-0.68	V
Transition frequency	$f_T$	$V_{CE} = -6V, I_C = -10mA$	50			MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4.5	7	pF
Noise figure	NF	$V_{CE} = -6V, I_C = -0.3mA, R_g = 10k, f = 100Hz$		6	20	dB

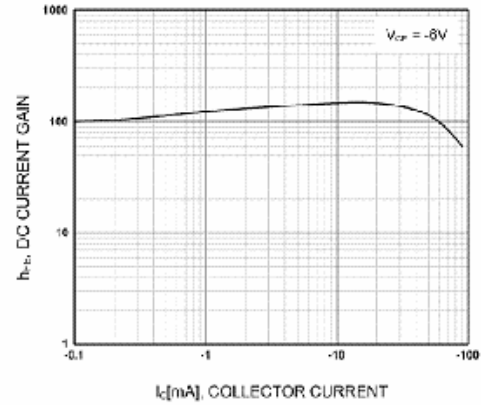
**CLASSIFICATION OF  $h_{FE}$** 

Rank	L	H
Range	120-220	220-475

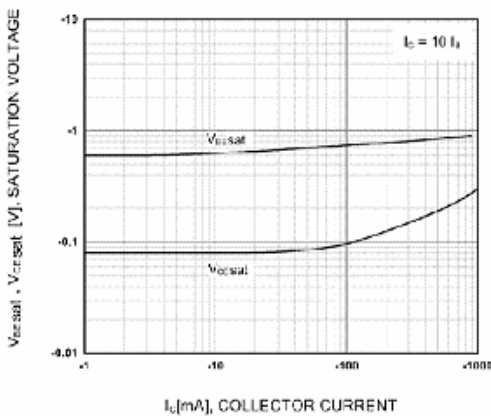
**2SA733** Typical Characteristics



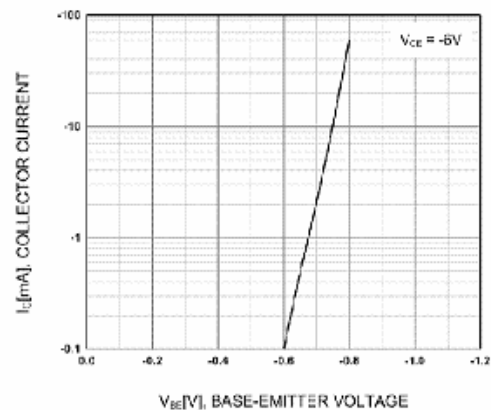
**Static Characteristic**



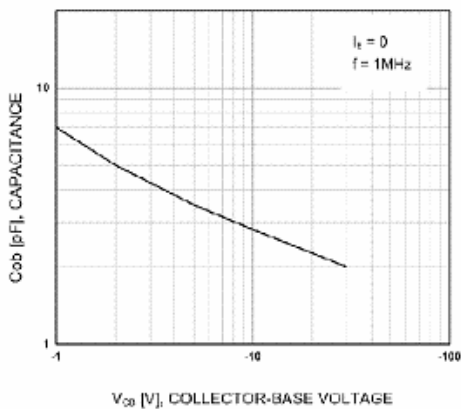
**DC current Gain**



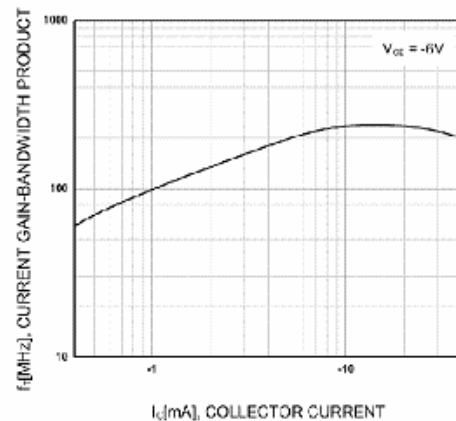
**Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Base-Emitter On Voltage**



**Collector Output Capacitance**



**Current Gain Bandwidth Product**