

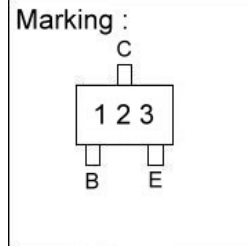
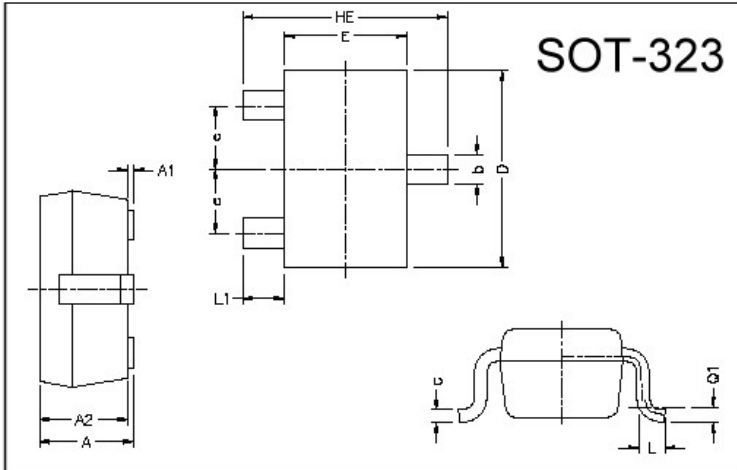
## GS123

### NPN EPITAXIAL TRANSISTOR

#### Description

The GS123 is designed for general purpose amplifier applications.

#### Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.80	1.10	L1	0.42 REF.	
A1	0	0.10	L	0.15	0.35
A2	0.80	1.00	b	0.25	0.40
D	1.80	2.20	c	0.10	0.25
E	1.15	1.35	e	0.65 REF.	
HE	1.80	2.40	Q1	0.15 BSC.	

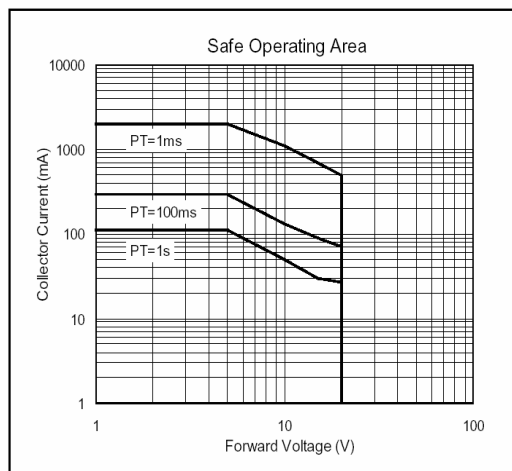
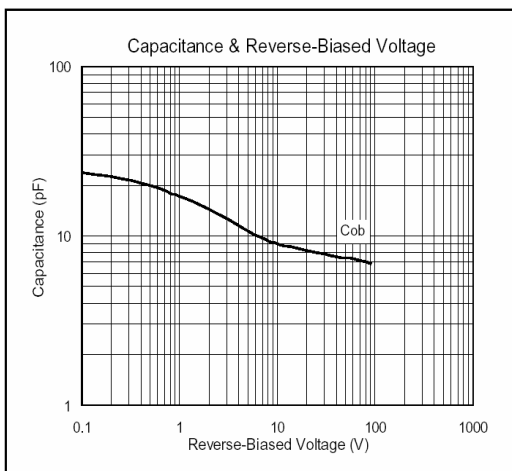
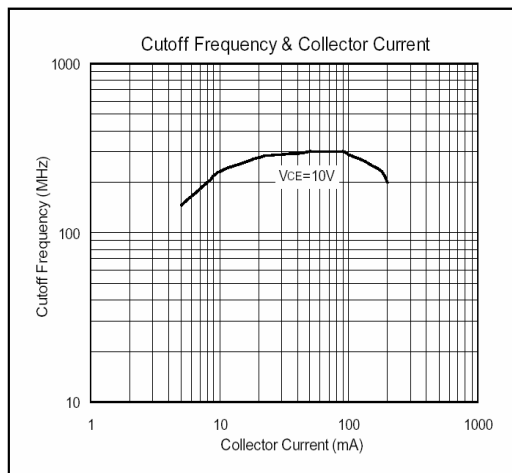
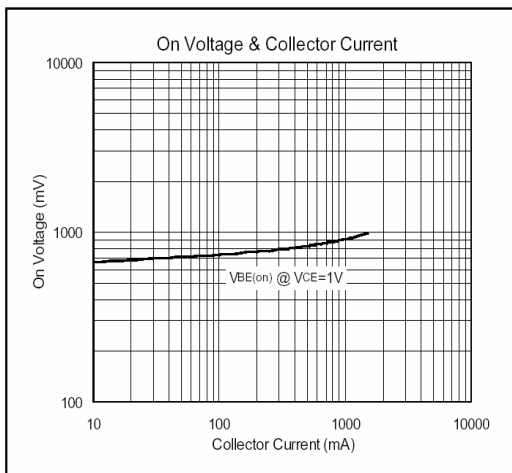
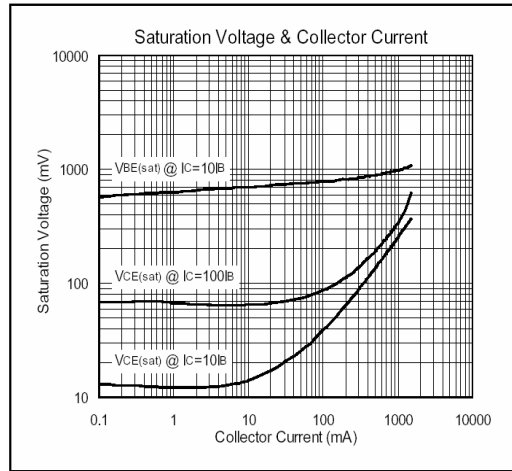
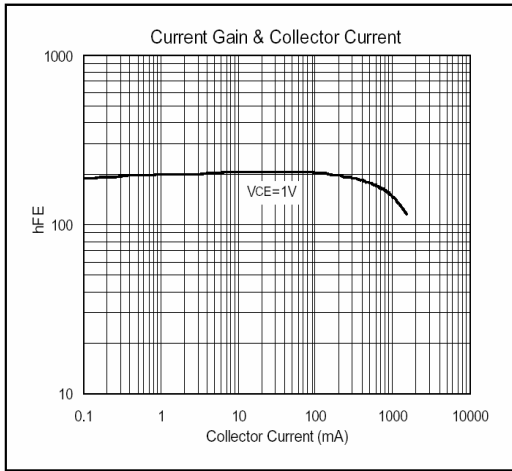
#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T <sub>j</sub>	+150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C
Collector to Base Voltage	VCBO	25	V
Collector to Emitter Voltage	VCEO	20	V
Emitter to Base Voltage	VEBO	5	V
Collector Current	I <sub>C</sub>	700	mA
Total Power Dissipation	PD	225	mW

#### Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	25	-	-	V	I <sub>C</sub> =10μA, I <sub>E</sub> =0
BVCEO	20	-	-	V	I <sub>C</sub> =1mA, I <sub>B</sub> =0
BVEBO	5	-	-	V	I <sub>E</sub> =10μA, I <sub>C</sub> =0
ICBO	-	-	1	μA	V <sub>CB</sub> =20V, I <sub>E</sub> =0
VCE(sat)	-	-	400	mV	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA
VBE(on)	-	-	1	V	V <sub>CE</sub> =1V, I <sub>C</sub> =150mA
hFE	150	-	300		V <sub>CE</sub> =1V, I <sub>C</sub> =150mA
f <sub>T</sub>	150	-	-	MHz	V <sub>CE</sub> =10V, I <sub>C</sub> =20mA, f=100MHz
C <sub>ob</sub>	-	-	10	pF	V <sub>CB</sub> =10V, f=1MHz

## Characteristics Curve



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