

GSC945

NPN EPITAXIAL SILICON TRANSISTOR

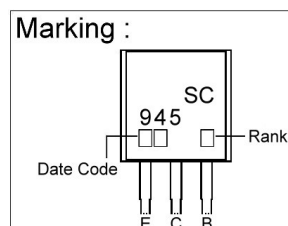
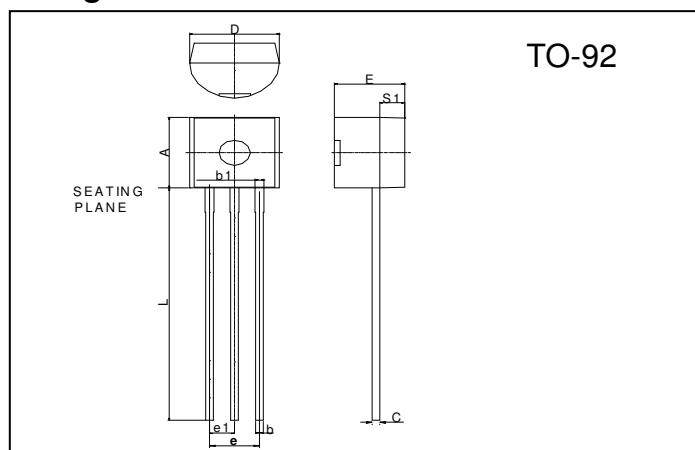
Description

The GSC945 is an audio frequency amplifier high frequency OSC NPN transistor.

Features

- Collector-Emitter Voltage $BV_{CE0}=50V$
- Collector current up to 150mA
- High h_{FE} linearity

Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.45	4.7	D	4.44	4.7
S1	1.02	-	E	3.30	3.81
b	0.36	0.51	L	12.70	-
b1	0.36	0.76	e1	1.150	1.390
C	0.36	0.51	e	2.42	2.66

Absolute Maximum Ratings ($T_A=25^{\circ}C$)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	50	mA
Total Device Dissipation	P_D	250	mW
Junction Temperature	T_J	125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 ~ +150	$^{\circ}C$

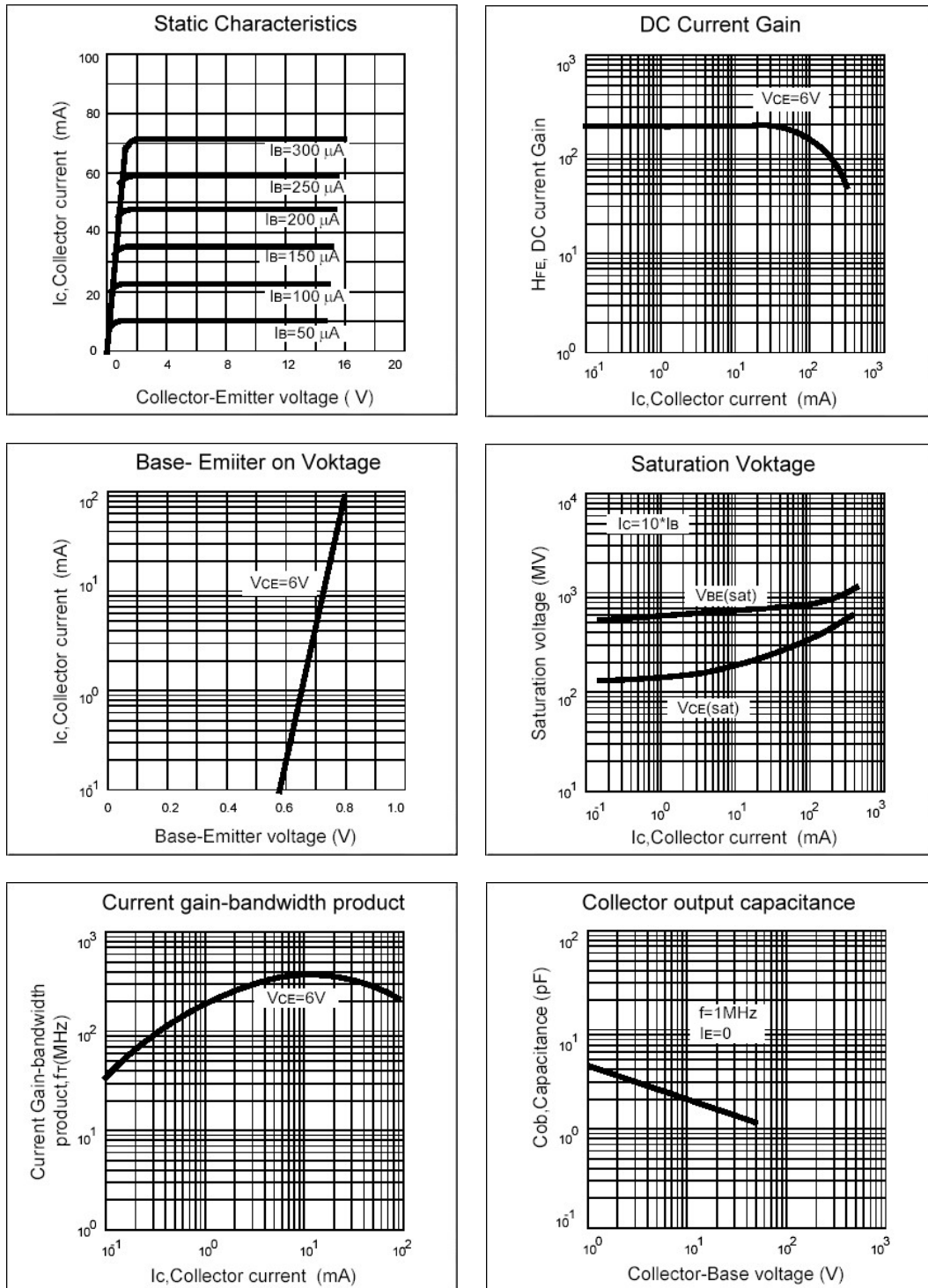
Electrical Characteristics ($T_A = 25^{\circ}C$ unless otherwise noted)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	60	-	-	V	$I_C=100\mu A, I_E=0$
BV_{CEO}	50	-	-	V	$I_C=1mA, I_B=0$
BV_{EBO}	5	-	-	V	$I_E=1\mu A, I_C=0$
I_{CBO}	-	-	100	nA	$V_{CB}=40V$
I_{EBO}	-	-	100	nA	$V_{EB}=3V$
$V_{CE(sat)}$	-	0.1	0.3	V	$I_C=100mA, I_B=10mA$
h_{FE}	90	-	600		$V_{CE}=6V, I_C=1mA$
f_T	100	190	-	MHz	$V_{CE}=10V, I_C=50mA$
C_{ob}	-	2.0	3.0	pF	$V_{CB}=10V, I_E=0, f=1MHz$
NF	-	4.0	6.0	dB	$I_C=0.1mA, V_{CE}=6V, R_G=10k\Omega, f=100HZ$

Classification Of h_{FE}

Rank	R	Q	P	K
Range	90 ~ 180	135 ~ 270	200 ~ 400	300 ~ 600

Characteristics Curve



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