

**/ Descriptions**

SOT-23          NPN                          Silicon NPN transistor in a SOT-23 Plastic Package.

**/ Features**

High voltage and high current, excellent  $h_{FE}$  linearity ,low noise.

**/ Applications**

Audio frequency general purpose, driver stage amplifier applications.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Base          PIN 2 Emitter          PIN 3 Collector

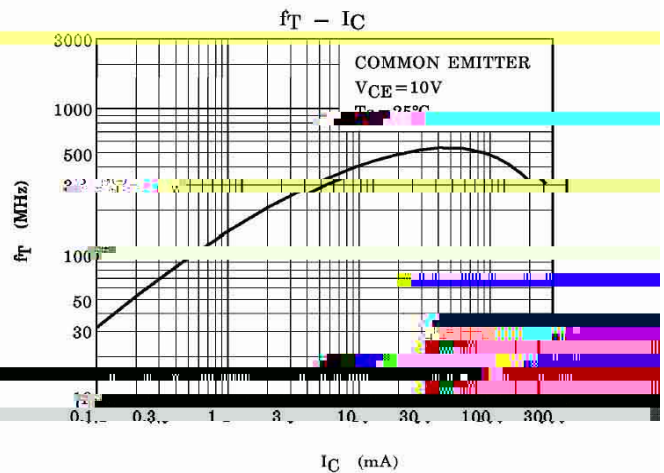
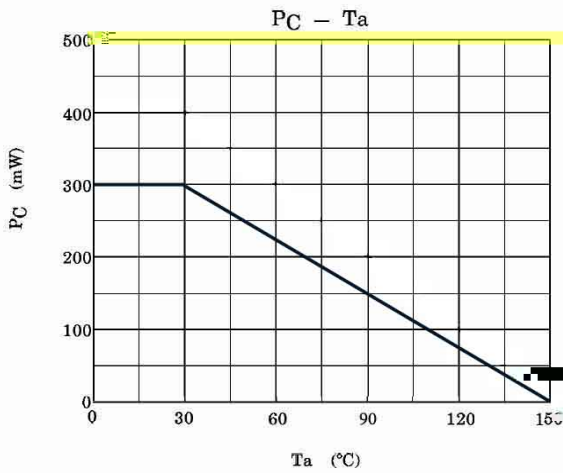
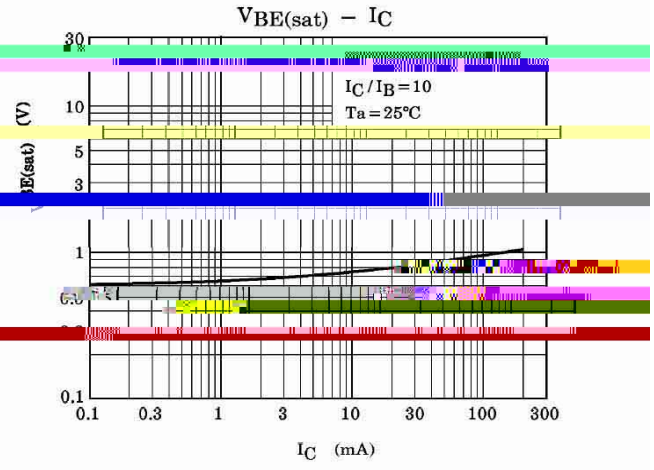
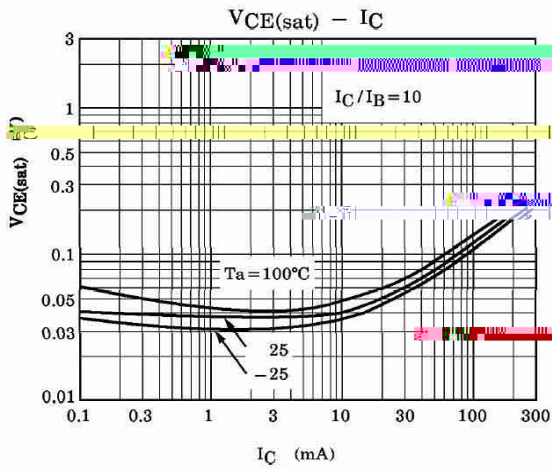
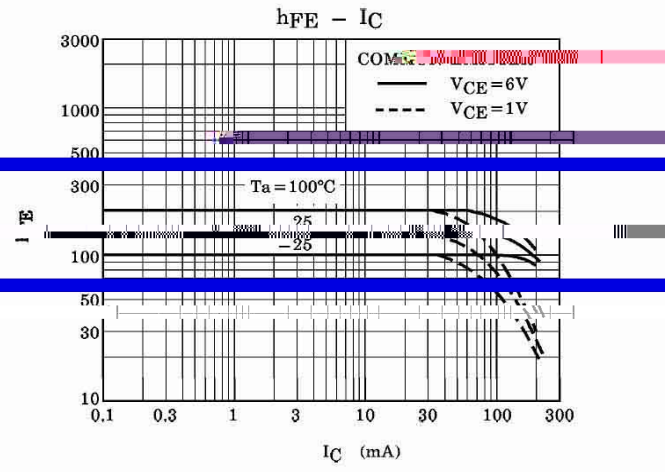
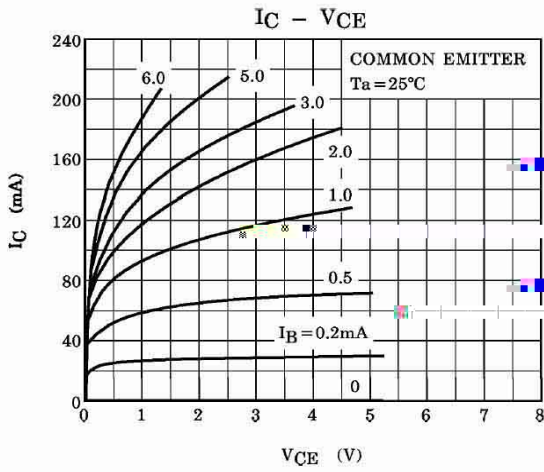
**/  $h_{FE}$  Classifications & Marking**

$h_{FE}$ Classifications Symbol	O	Y	GR	BL
$h_{FE}$ Range	70 140	120 240	200 400	350 700
Marking	HHFO	HHFY	HHFG	HHFB

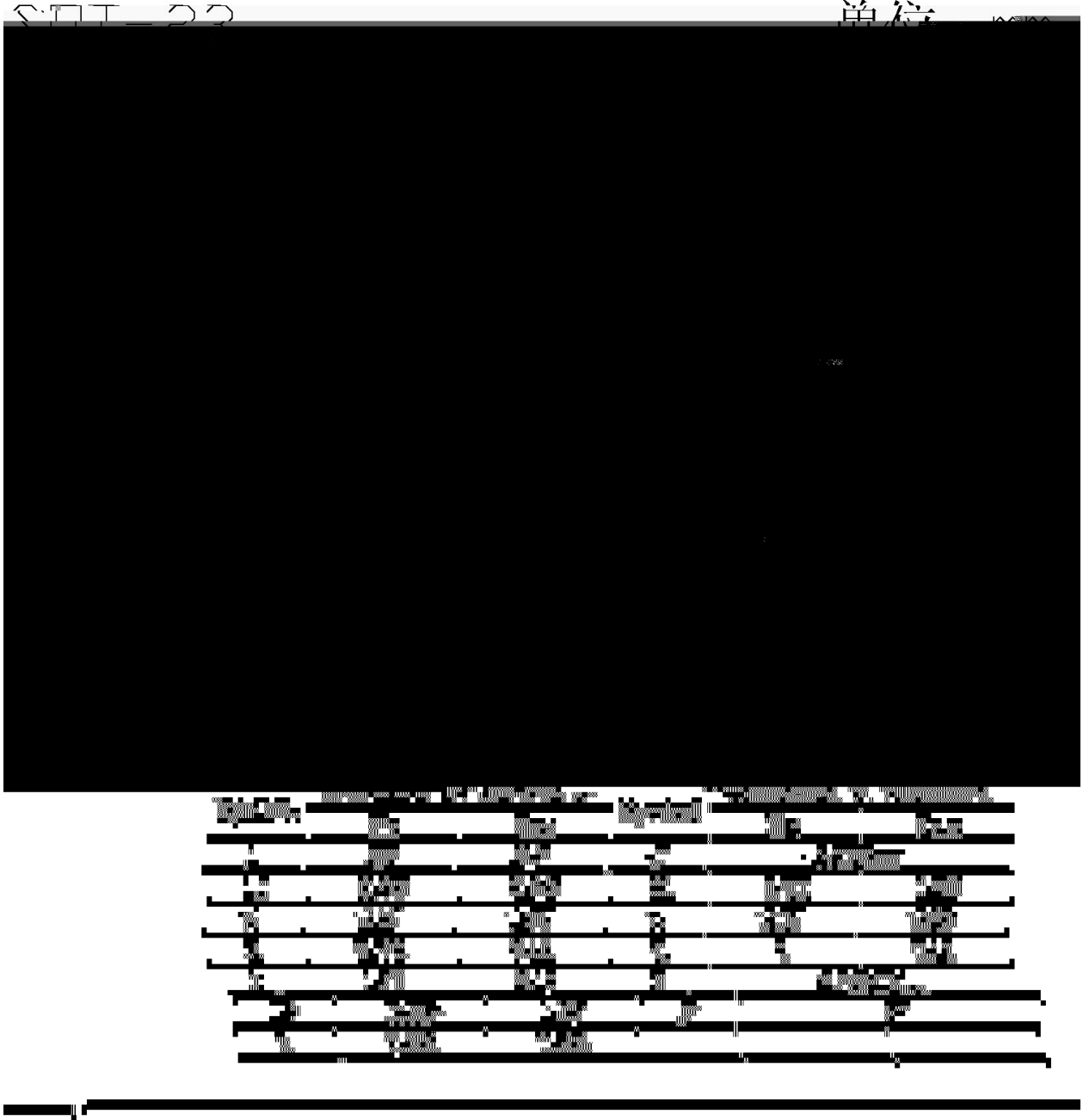
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	60	V
Collector to Emitter Voltage	$V_{CEO}$	50	V
Emitter to Base Voltage	$V_{EBO}$	5.0	V
Collector Current	$I_C$	150	mA
Base Current	$I_B$	50	mA
Collector Power Dissipation	$P_C$	300	mW
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=60V$ $I_E=0$			0.1	$\mu A$
Emitter Base Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0V$ $I_C=0$			0.1	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=6.0V$ $I_C=2.0mA$	70		700	
	$h_{FE(2)}$	$V_{CE}=6.0V$ $I_C=150mA$	25	100		
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=10mA$		0.1	0.25	V

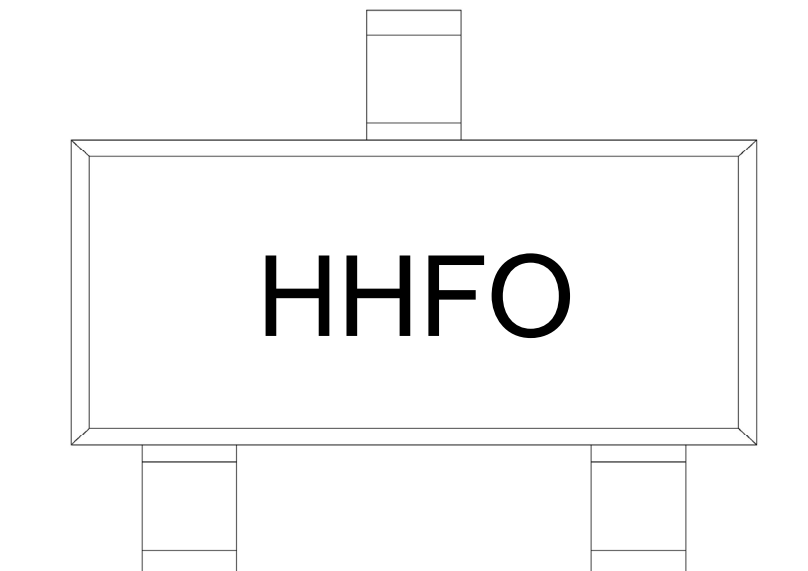
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



H

HF

O:  $h_{FE}$

Note:

H: Company Code

HF: Product Type Code

O:  $h_{FE}$  Classifications Symbol Code

