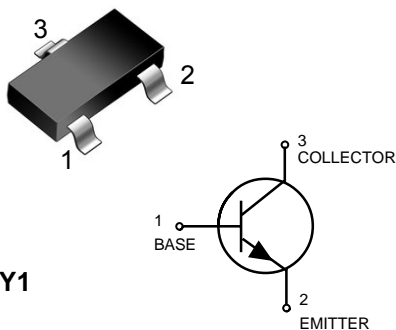


**SOT-23**

**MARKING: Y1**
**Features**

As complementary type the PNP transistor SS8550 is recommended

 Collector current :  $I_C=1.5A$ 

Epitaxial planar die construction

Halogen free and RoHS compliant

**Mechanical Data**

SOT-23 Small Outline Plastic Package

EpoxyUL: 94V-0

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel,7" reel	3000	EIA-481-1

**Maximum Ratings & Thermal Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	25	V
Emitter -Base Voltage	$V_{EBO}$	5	V
Collector Current-Continuous	$I_C$	1500	mA
Collector Power Dissipation	$P_C$	300	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55-+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$	417	°C/W

**Electrical Characteristics**

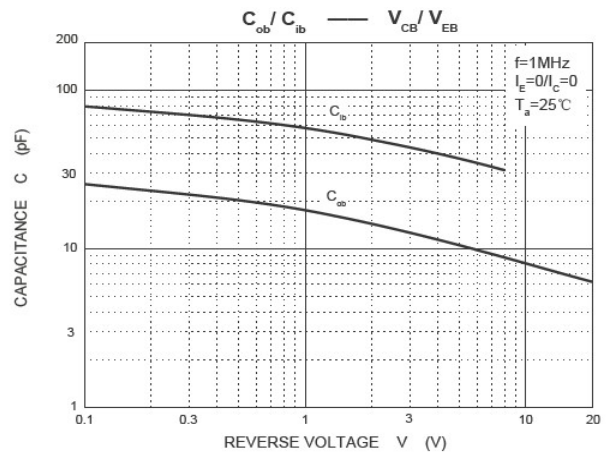
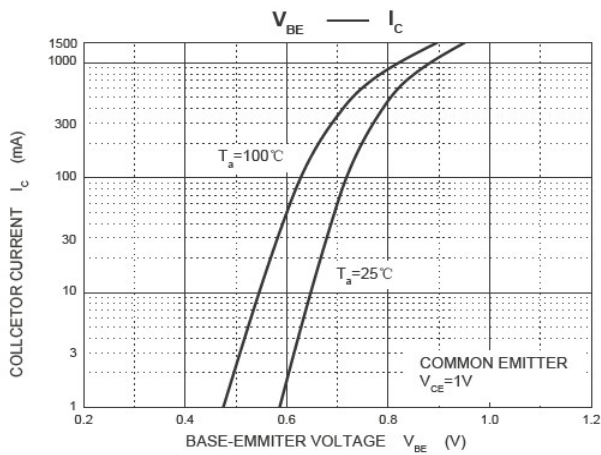
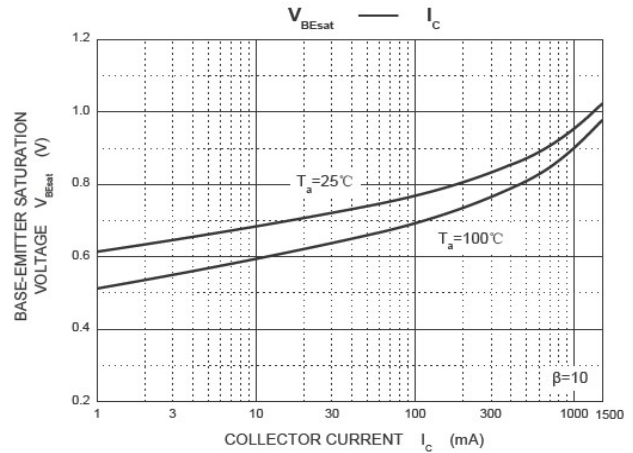
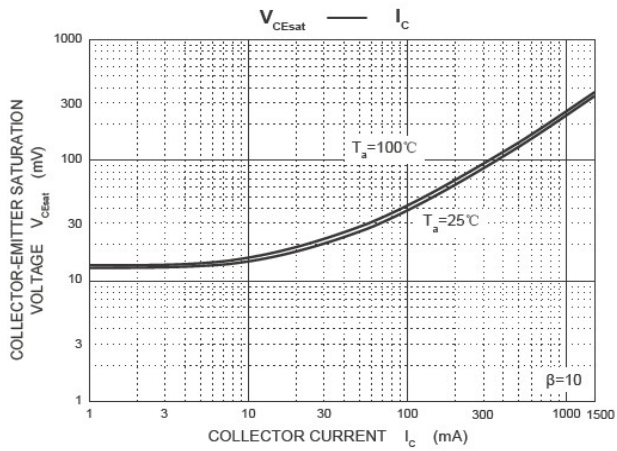
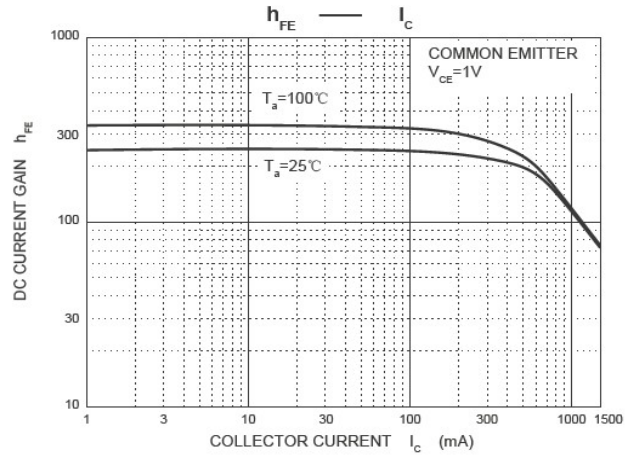
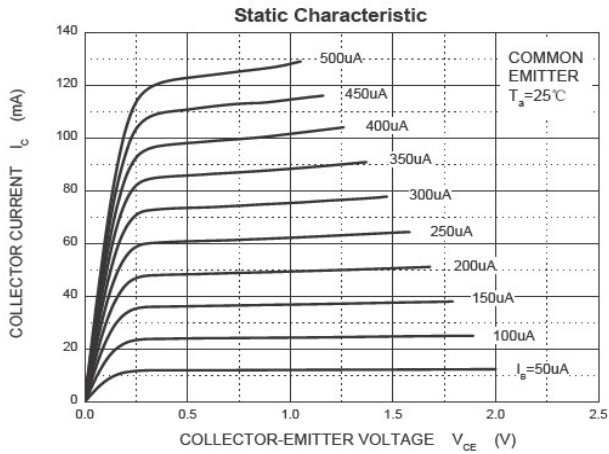
(Ratings at 25°C ambient temperature unless otherwise specified).

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.1mA, I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=40V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=100mA$	120		400	
	$h_{FE(2)}$	$V_{CE}=1V, I_C=800mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=800mA, I_B=80mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=800mA, I_B=80mA$			1.2	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=50mA$ $f=30MHz$	100			MHz

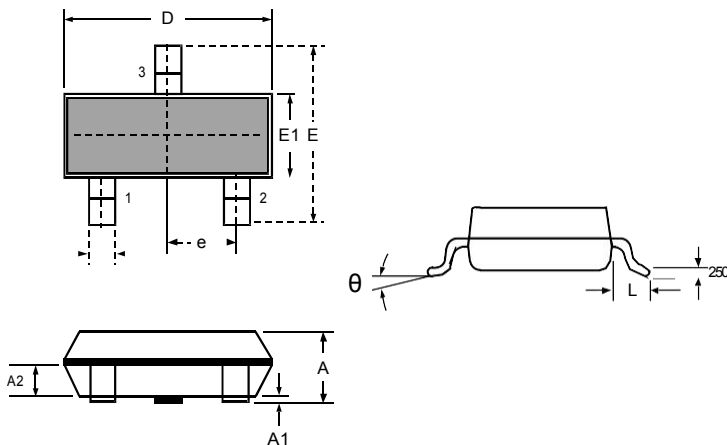
**CLASSIFICATION OF  $h_{FE(1)}$** 

RANK	L	H	J
RANGE	120-200	200-350	300-400

## Ratings and Characteristic Curves



## Package Outline Dimensions: SOT-23



### DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
$\theta$	0	$8^\circ$	0	$8^\circ$