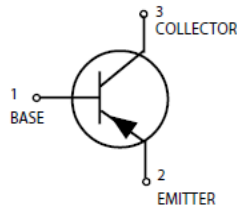
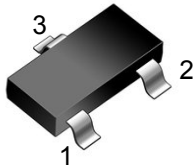


**SOT-23**

**MARKING: Y2**
**Features**

As complementary type the NPN transistor SS8050 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**

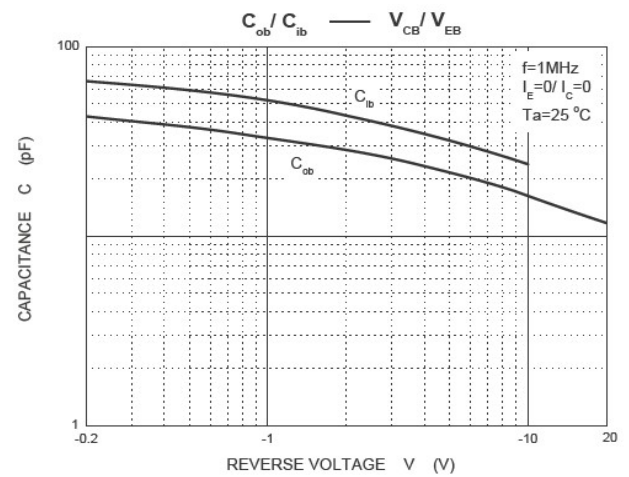
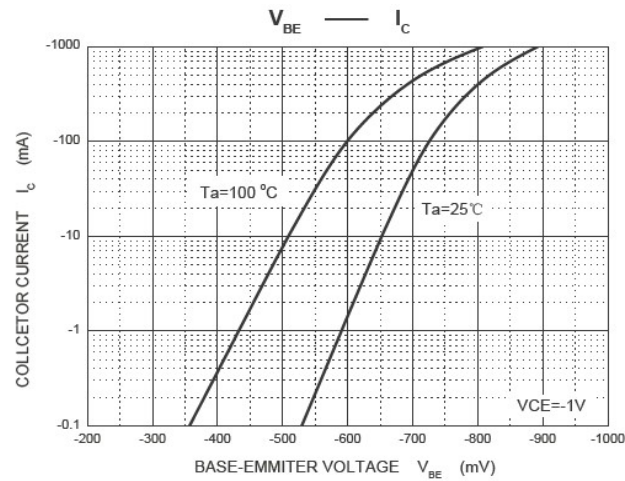
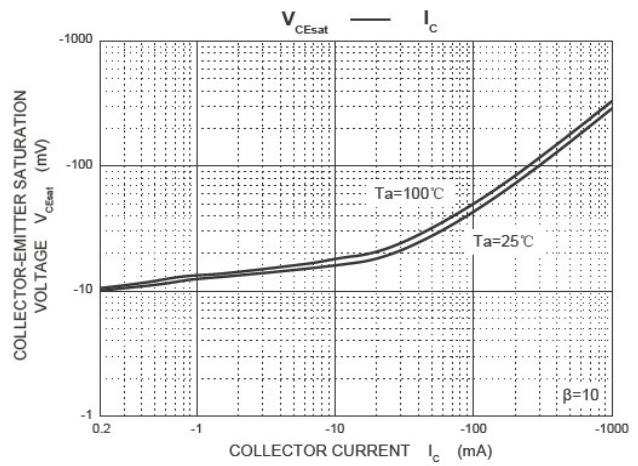
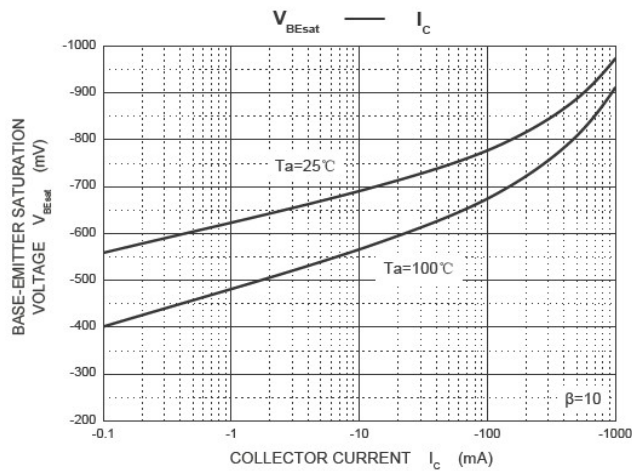
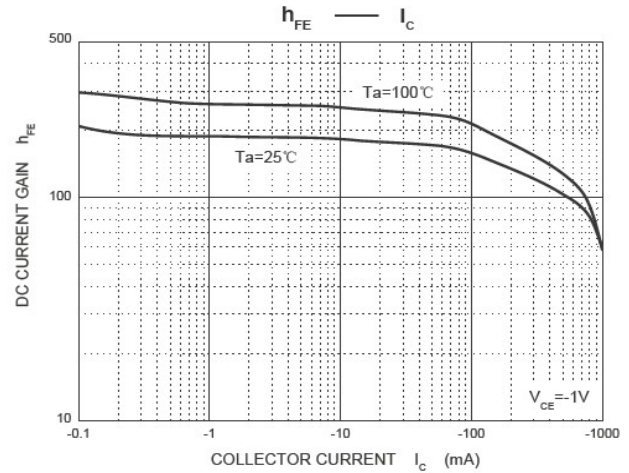
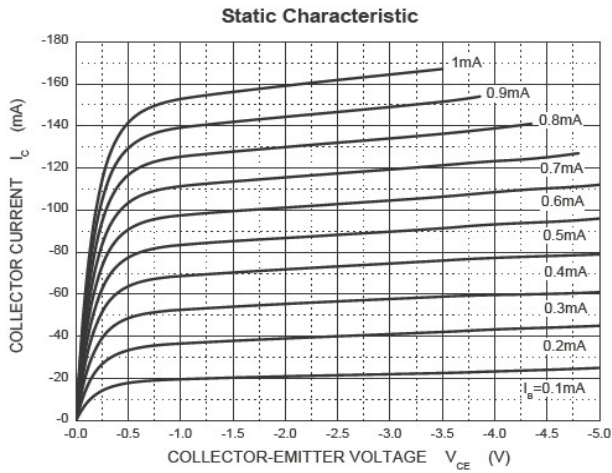
(Ratings at 25°C ambient temperature unless otherwise specified).

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	$I_{CBO}$	$V_{CB} = -40V, I_E = 0$			-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-100	nA
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
Base-emitter voltage	$V_{BE}$	$V_{CE} = -1V, I_C = -10mA$			-1	V
Transition frequency	$f_T$	$V_{CE} = -10V, I_C = -50mA, f = 30MHz$	100			MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$			20	pF

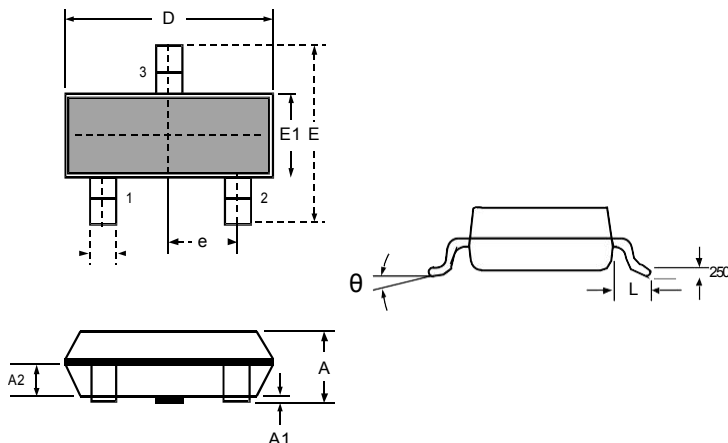
**CLASSIFICATION OF  $h_{FE(1)}$** 

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°	0	8°