

1. Descriptions

· General small signal amplifier

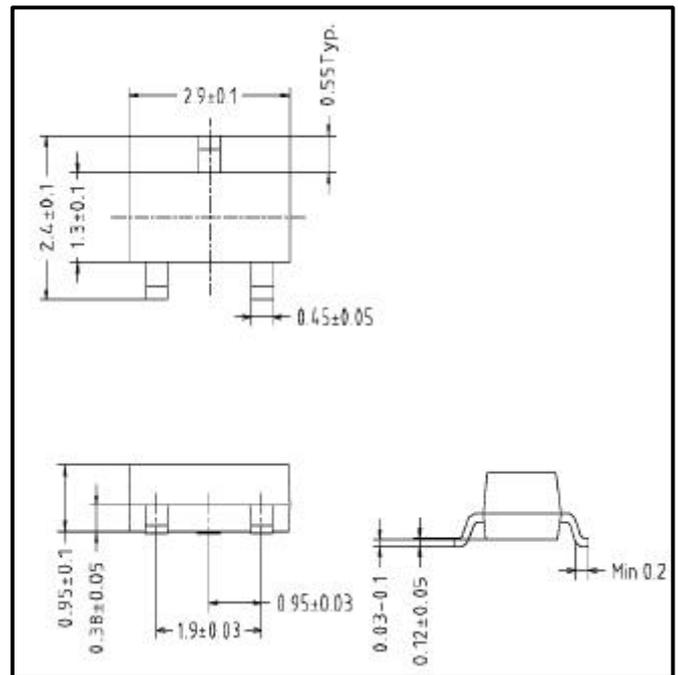
2. Features

- Low collector saturation voltage
 $V_{CE(sat)} = \text{Max. } 0.4\text{V}$
- Low output capacitance
 $C_{ob} = \text{Typ. } 2\text{pF}$
- Complementary to the SSA1037

3. Ordering Information

Device	Marking	Package
SSC2412	DA	SOT-23

: h_{FE} Rank



SOT-23 Package Outline Dimension

4. Maximum ratings ($T_a=25$)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	50	V
Collector-Emitter voltage	V_{CEO}	50	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	150	mA
Collector dissipation	P_C	200	mW
Junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55~150	$^{\circ}\text{C}$

5. Electrical Characteristics ($T_a=25$)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	$I_C=50\mu\text{A}, I_E=0$	50	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C=1\text{mA}, I_B=0$	50	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E=50\mu\text{A}, I_C=0$	5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$	-	-	0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$	-	-	0.5	μA
DC current gain	h_{FE}^*	$V_{CE}=6\text{V}, I_C=1\text{mA}$	70	-	700	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=50\text{mA}, I_B=5\text{mA}$	-	-	0.4	V
Transistion frequency	f_T	$V_{CE}=12\text{V}, I_C=2\text{mA}$	-	180	-	MHz
Collector output capacitance	C_{ob}	$V_{CB}=12\text{V}, I_E=0, f=1\text{MHz}$	-	2	-	pF
Noise figure	NF	$V_{CE}=6\text{V}, I_C=0.1\text{mA}, f=1\text{KHz}, R_g=10\text{K}\Omega$	-	1	10	dB

h_{FE} Rank : O = 70~140 , Y=120~240 , G=200~400 , L=300~700

6. Electrical Characteristics Curves

Fig 1. $P_c - T_a$

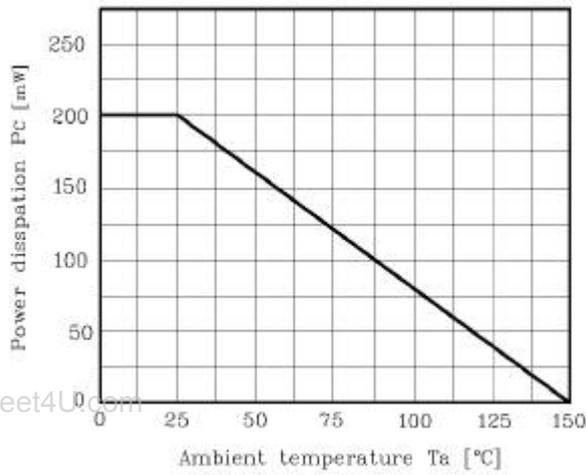


Fig 2. $I_c - V_{BE}$

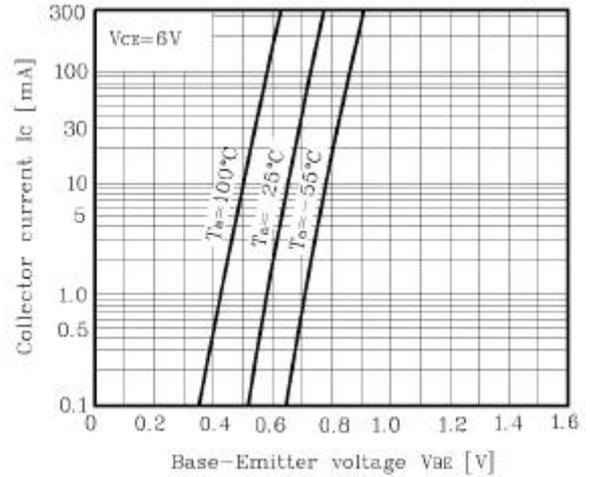


Fig 3. $I_c - V_{CE}$

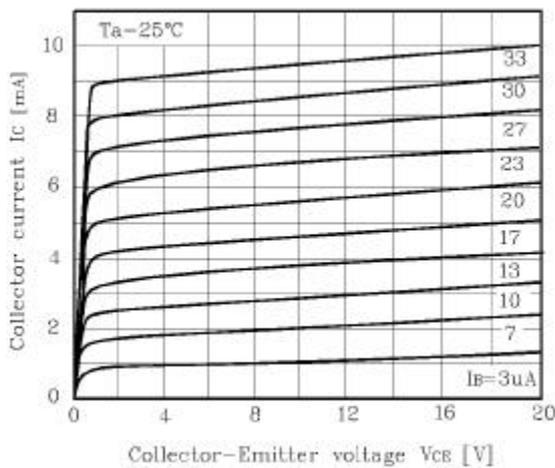


Fig 4. $V_{CE(sat)} - I_c$

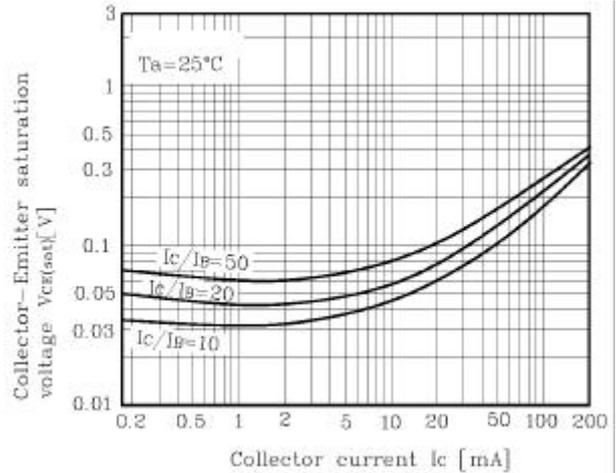


Fig 5. $h_{FE} - I_c$

