

# NPN General Purpose Transistor

## SSTA06 / MMSTA06

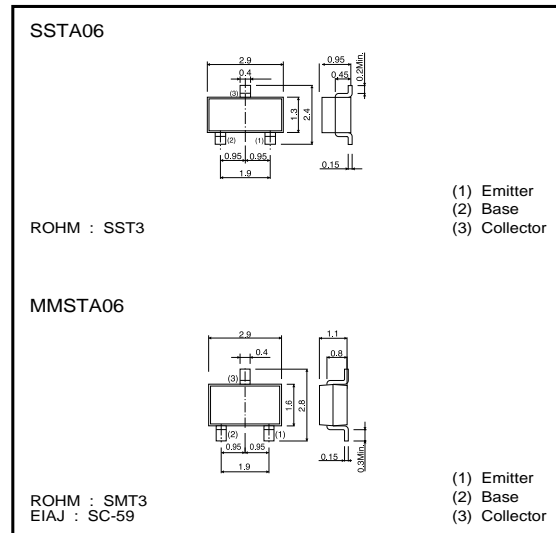
### ●Features

- 1)  $BV_{CEO} < 80V$  ( $I_C=1mA$ )
- 2) Complements the SSTA56 / MMSTA56.

### ●Package, marking and packaging specifications

Part No.	SSTA06	MMSTA06
Packaging type	SST3	SMT3
Mark	R1G	R1G
Code	T116	T146
Basic ordering unit (pieces)	3000	3000

### ●Dimensions (Unit : mm)



### ●Absolute maximum ratings ( $T_a=25^\circ C$ )

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	80	V
Collector-emitter voltage	$V_{CEO}$	80	V
Emitter-base voltage	$V_{EBO}$	4	V
Collector current	$I_C$	0.5	A
Collector power dissipation	$P_C$	0.2	W
		0.35	W*
Junction temperature	$T_J$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

\* Mounted on 7x5x0.6mm ceramic substrate.

### ●Electrical characteristics ( $T_a=25^\circ C$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	80	—	—	V	$I_C=100\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	80	—	—	V	$I_C=1mA$
Emitter-base breakdown voltage	$BV_{EBO}$	4	—	—	V	$I_E=100\mu A$
Collector cutoff current	$I_{CBO}$	—	—	0.1	$\mu A$	$V_{CB}=80V$
	$I_{CEO}$	—	—	1	$\mu A$	$V_{CE}=60V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.25	V	$I_C/I_E=100mA/10mA$
Base-emitter saturation voltage	$V_{BE(ON)}$	—	—	1.2	V	$V_{CE}/I_E=1V/100mA$
DC current transfer ratio	$h_{FE}$	100	—	—	—	$V_{CE}=1V, I_C=10mA$
		100	—	—	—	$V_{CE}=1V, I_C=100mA$
Transition frequency	$f_T$	100	—	—	MHz	$V_{CE}=2V, I_E=-10mA, f=100MHz$

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●Electrical characteristics curves

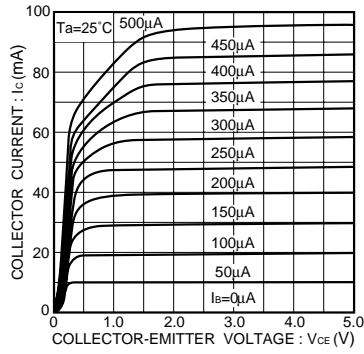


Fig.1 Grounded emitter output characteristics

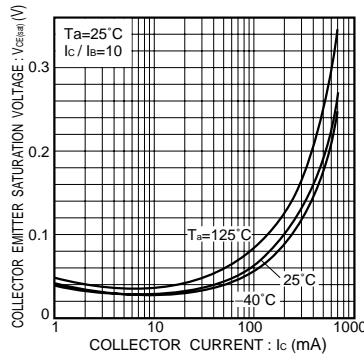


Fig.2 Collector-emitter saturation voltage vs. collector current

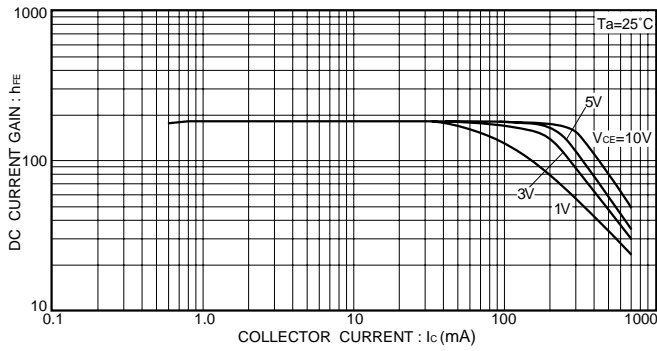


Fig.3 DC current gain vs. collector current ( I )

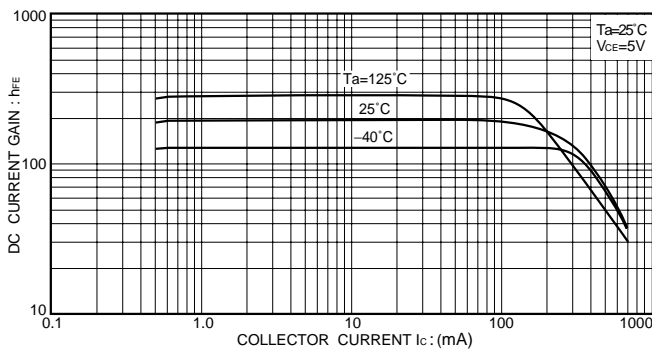


Fig.4 DC current gain vs. collector current ( II )

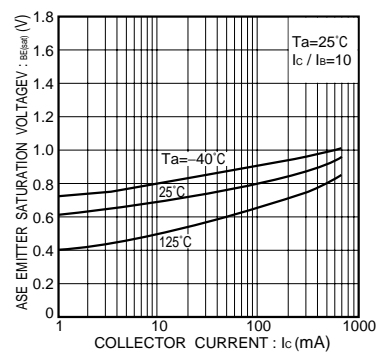


Fig.5 Base-emitter saturation voltage vs. collector current

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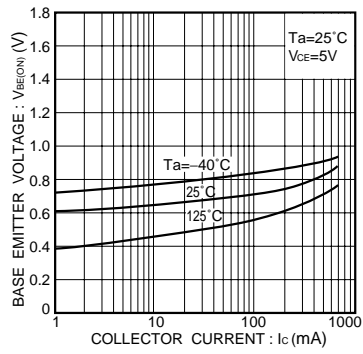


Fig.6 Grounded emitter propagation characteristics

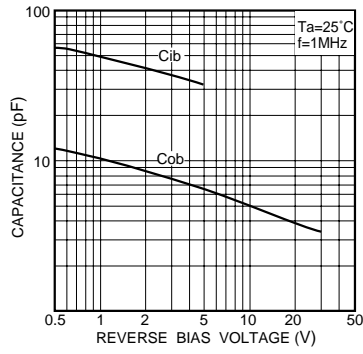


Fig.7 Input / output capacitance vs. voltage

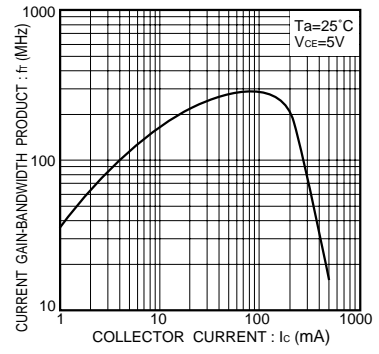


Fig.8 Gain bandwidth product vs. collector current

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