

Transistors

NPN General Purpose Transistor

SSTA06 / MMSTA06

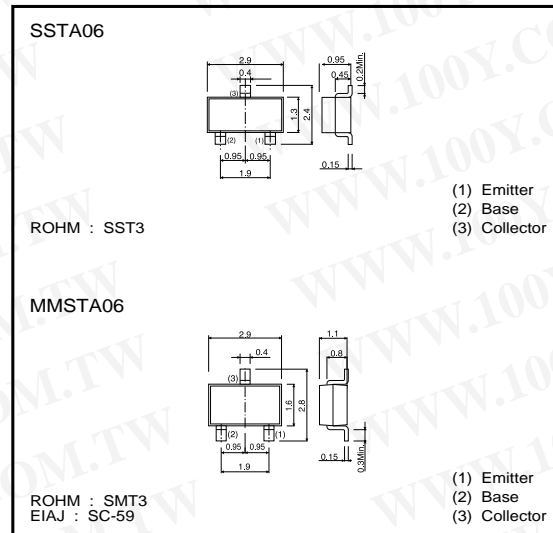
●Features

- 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	μA	$V_{CB}=80V$
		-	-	1	μA	$V_{CE}=60V$
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

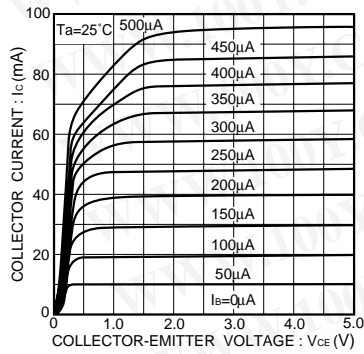


Fig.1 Grounded emitter output characteristics

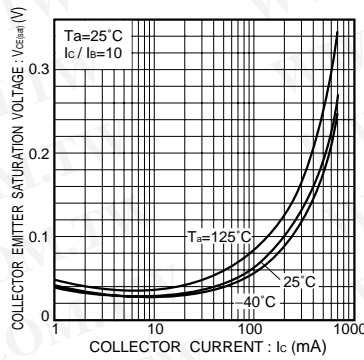


Fig.2 Collector-emitter saturation voltage vs. collector current

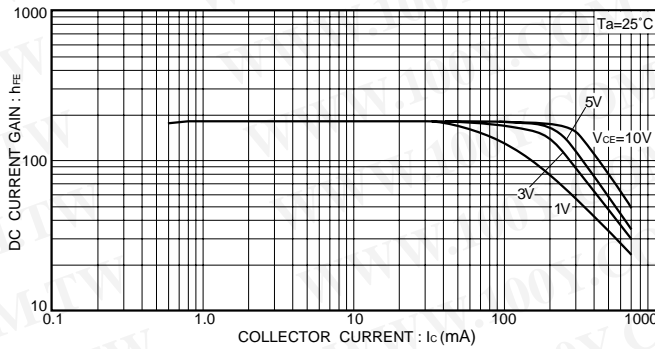


Fig.3 DC current gain vs. collector current (I)

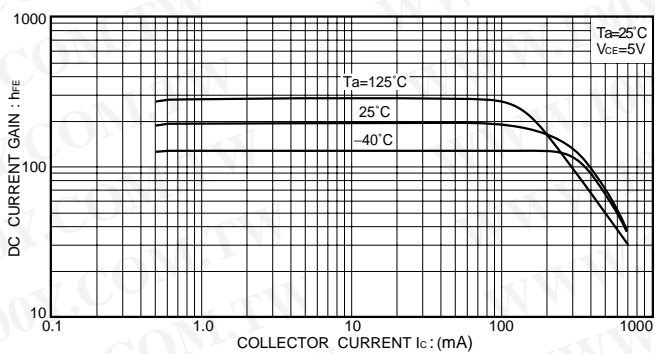


Fig.4 DC current gain vs. collector current (II)

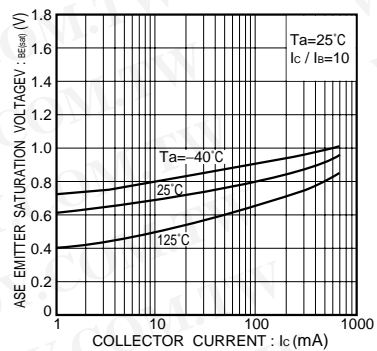


Fig.5 Base-emitter saturation voltage vs. collector current

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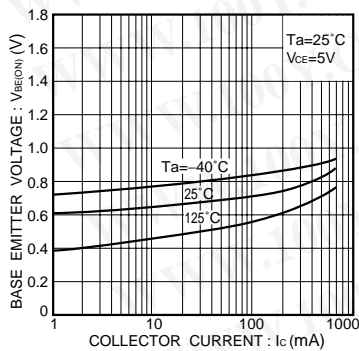


Fig.6 Grounded emitter propagation characteristics

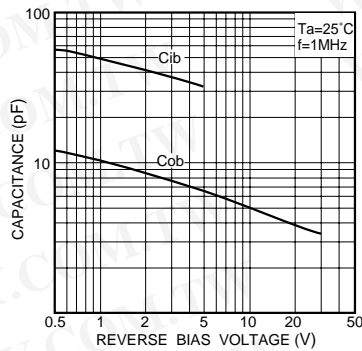


Fig.7 Input / output capacitance vs. voltage

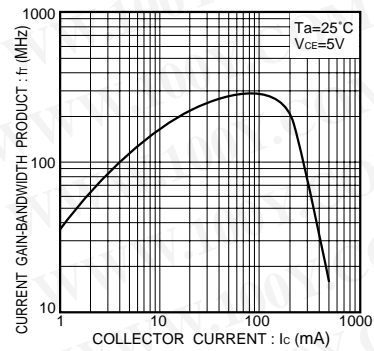


Fig.8 Gain bandwidth product vs. collector current

Appendix

Notes

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