NPN General Purpose Transistor

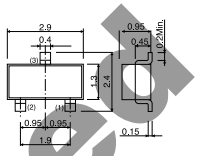
SSTA06 / MMSTA06

●Features

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

●Dimensions (Unit : mm)

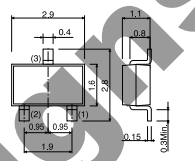
SSTA06



ROHM : SST3

(1) Emitter
(2) Base
(3) Collector

MMSTA06



ROHM : SMT3
EIAJ : SC-59

(1) Emitter
(2) Base
(3) Collector

●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

●Absolute maximum ratings (Ta=25°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	Tj	150	°C
Storage temperature	Tstg	−55 to +150	°C

* Mounted on 7×5×0.6mm ceramic substrate.

●Electrical characteristics (Ta=25°C)

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

●**Electrical characteristics curves**

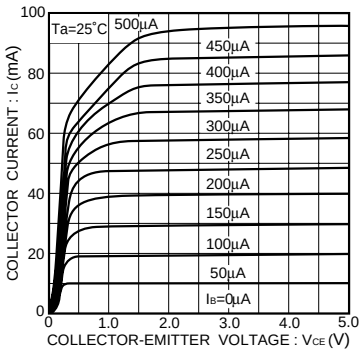


Fig.1 Grounded emitter output characteristics

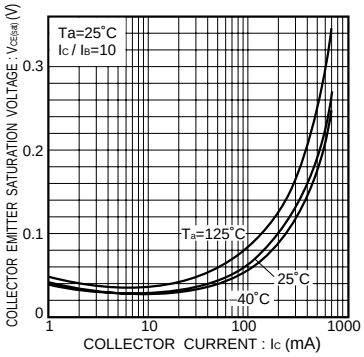


Fig.2 Collector-emitter saturation voltage vs. collector current

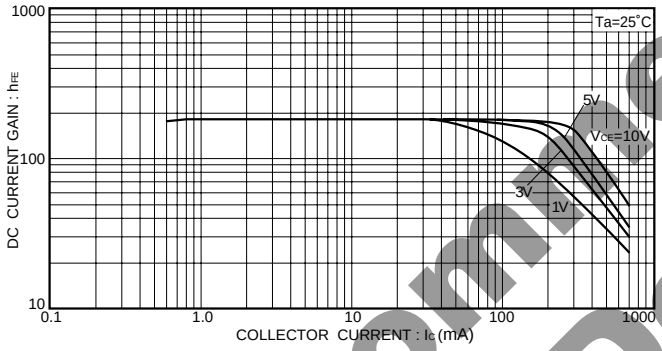


Fig.3 DC current gain vs. collector current (I)

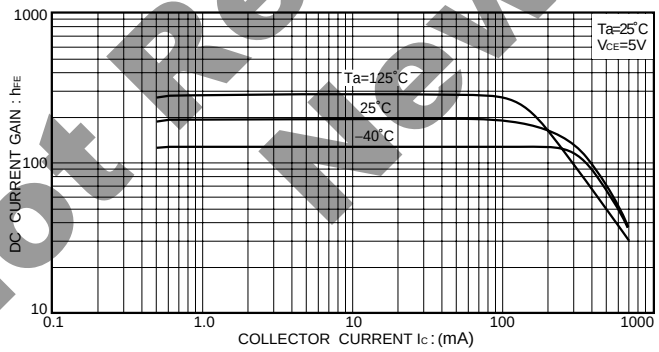


Fig.4 DC current gain vs. collector current (II)

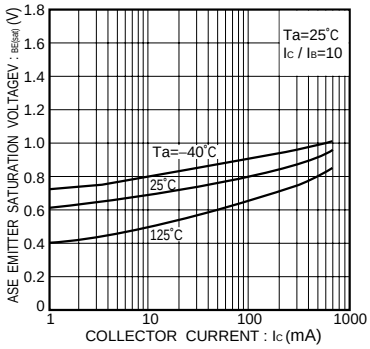


Fig.5 Base-emitter saturation voltage vs. collector current

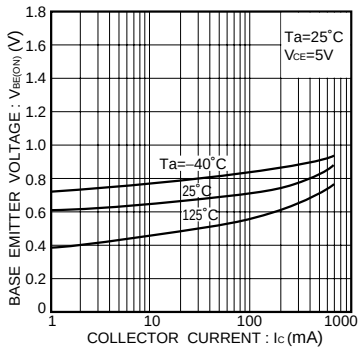


Fig.6 Grounded emitter propagation characteristics

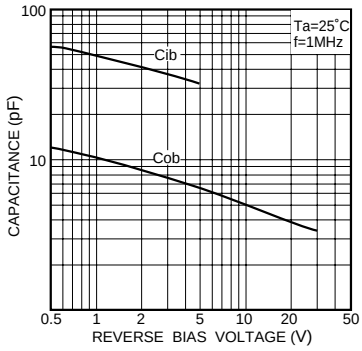


Fig.7 Input / output capacitance vs. voltage

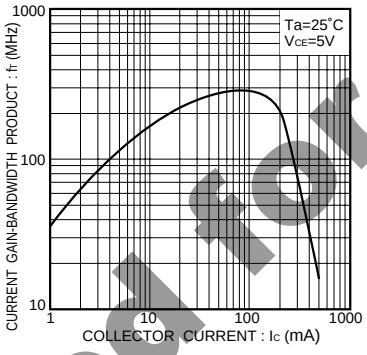


Fig.8 Gain bandwidth product vs. collector current

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www.rohm.com **Contact us** : webmaster@ rohm.co.jp

ROHM CO., LTD. 21, Saiin Mizosaki-cho, Ukyo-ku, Kyoto 615-8585, Japan
TEL : +81-75-311-2121
FAX : +81-75-315-0172