PNP general purpose transistor

SSTA56 / MMSTA56

●Features

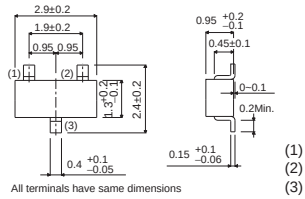
1) $BV_{CEO} < -40V$ ($I_C = 100\mu A$)
2) Complements the SSTA06 / MMSTA06.

●Package, marking and packaging specifications

Part No.	SSTA56	MMSTA56
Packaging type	SST3	SMT3
Marking	R2G	R2G
Code	T116	T146
Basic ordering unit (pieces)	3000	3000

●External dimensions (Unit : mm)

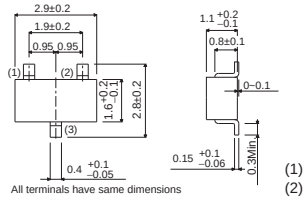
SSTA56



ROHM : SST3
JEDEC : SOT-23
All terminals have same dimensions

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

MMSTA56



ROHM : SMT3
EIAJ : SC-59
JEDEC : SOT-346
All terminals have same dimensions

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

●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 a 7×5×0.6mm CERAMIC SUBSTRATE

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Emitter-base breakdown voltage	BV_{EBO}	–4	–	–	V	I_C = –100mA
Collector-emitter breakdown voltage	BV_{CEO}	–80	–	–	V	I_C = –1mA
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 , I_C = –10mA
		100	–	–		V_{CE}= –1V , I_C = –100mA
Transition frequency	fT	50	–	–	MHz	V_{CE}= –1V , I_E= 100mA , f=100MHz

●**Electrical characteristic curves**

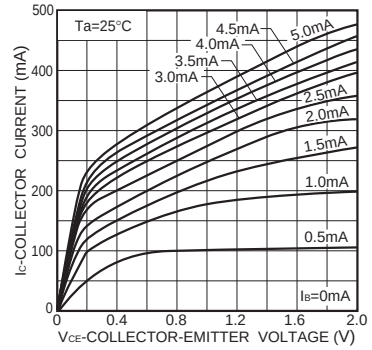


Fig.1 Grounded emitter output characteristics

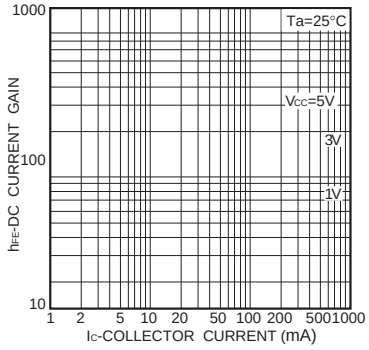


Fig.2 DC current gain vs. collector current (I)

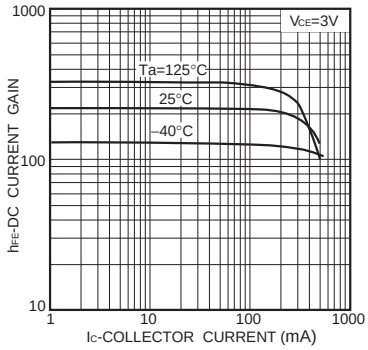


Fig.3 DC current gain vs. collector current (II)

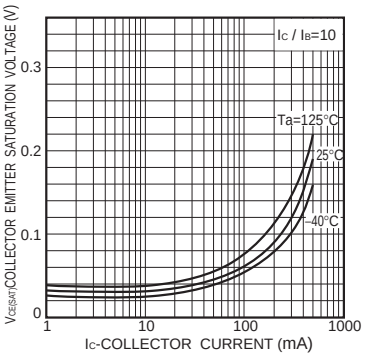


Fig.4 Collector emitter saturation voltage vs. collector current

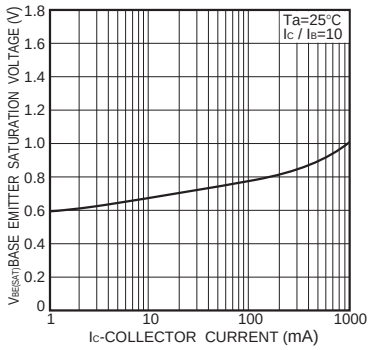


Fig.5 Base-emitter saturation voltage vs. collector current

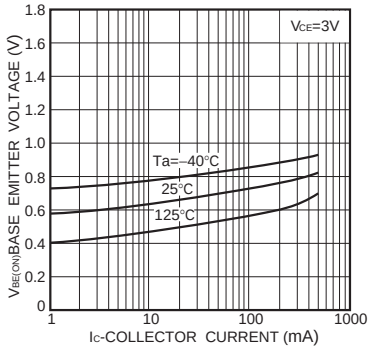


Fig.6 Grounded emitter propagation characteristics

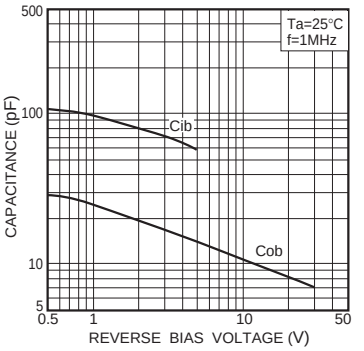


Fig.7 Input/output capecitance vs. voltage

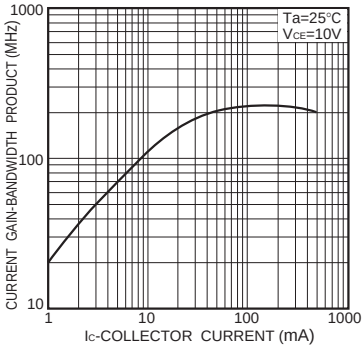


Fig.8 Gain bandwidth product vs. collector current

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