

PNP general purpose transistor

SSTA56 / MMSTA56

●Features

- 1) $BV_{CEO} < -40V$ ($I_C = -1mA$)
- 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

●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
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55~+150	$^\circ C$

●External dimensions (Units : mm)

SSTA56			
ROHM : SST3	JEDEC : SOT-23	All terminals have same dimensions	
MMSTA56			
ROHM : SMT3	EIAJ : SC-59 JEDEC : SOT-346	All terminals have same dimensions	

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-4	-	-	V	$I_C = -100\mu A$
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	μA	$V_{CE} = -60V$
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	f_T	50	-	-	MHz	$V_{CE} = -1V, I_E = 100mA, f = 100MHz$

Transistors

●Electrical characteristic curves

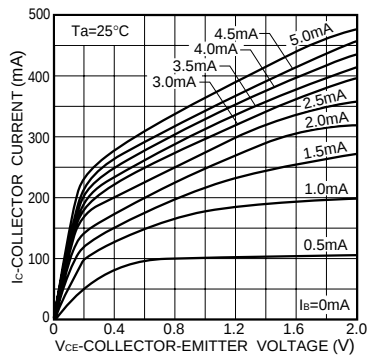


Fig.1 Grounded emitter output characteristics

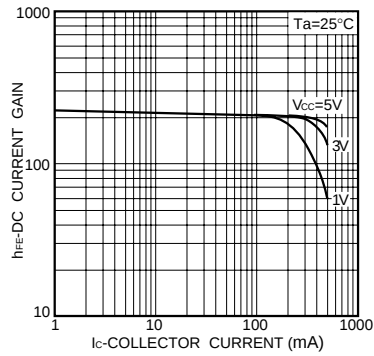


Fig.2 DC current gain vs. collector current (I)

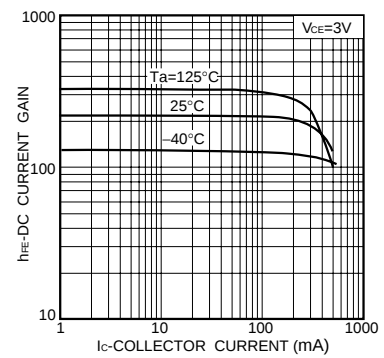


Fig.3 DC current gain vs. collector current (II)

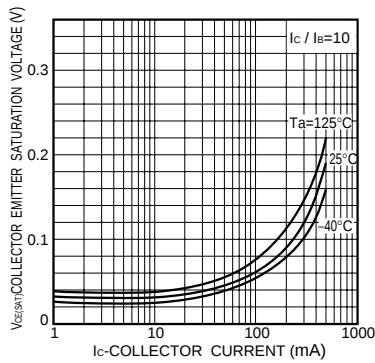


Fig.4 Collector emitter saturation voltage vs. collector current

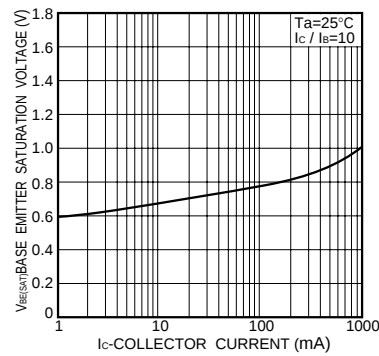


Fig.5 Base-emitter saturation voltage vs. collector current

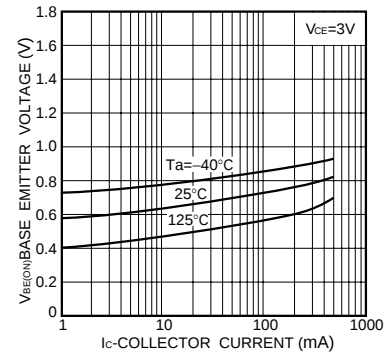


Fig.6 Grounded emitter propagation characteristics

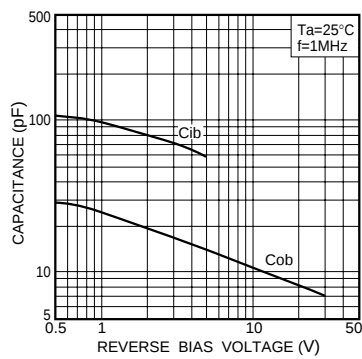


Fig.7 Input/output capacitance vs. voltage

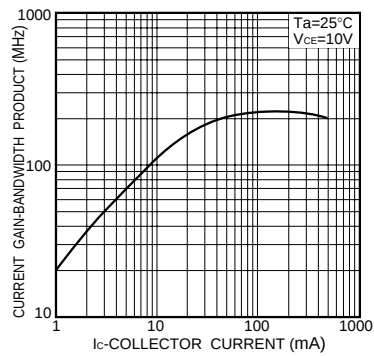


Fig.8 Gain bandwidth product vs. collector current