

# PNP general purpose transistor

## SSTA56 / MMSTA56

### ●Features

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

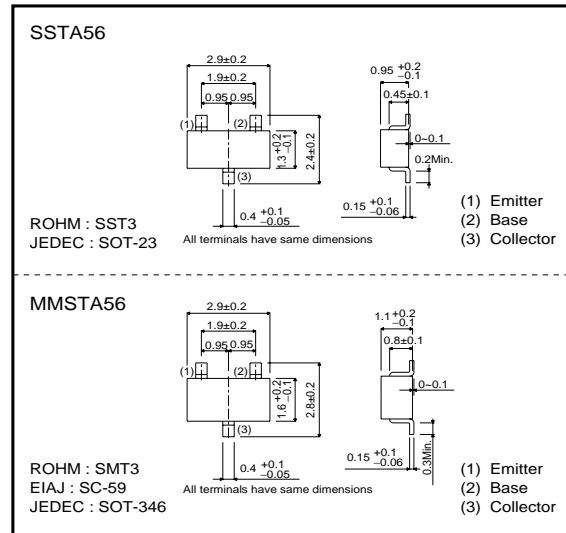
### ●Package, marking and packaging specifications

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)



### ●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	$\mu A$	$V_{CB} = -80V$
	$I_{CEO}$	-	-	-1	$\mu A$	$V_{CE} = -60V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.25	V	$I_C/I_B = -100mA/-10mA$
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

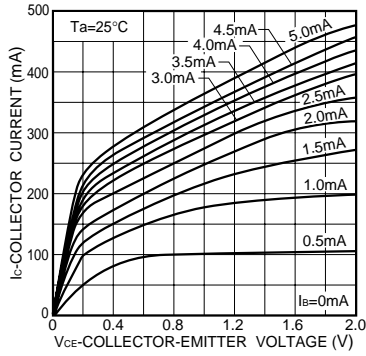


Fig.1 Grounded emitter output characteristics

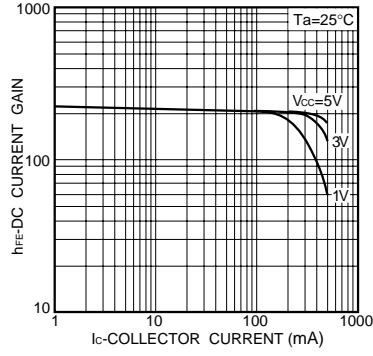


Fig.2 DC current gain vs. collector current ( I )

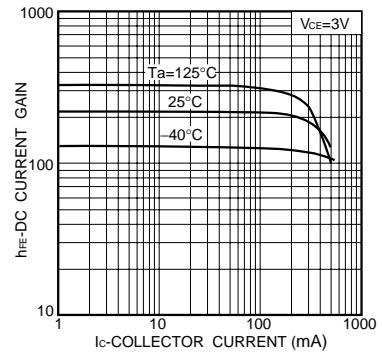


Fig.3 DC current gain vs. collector current ( II )

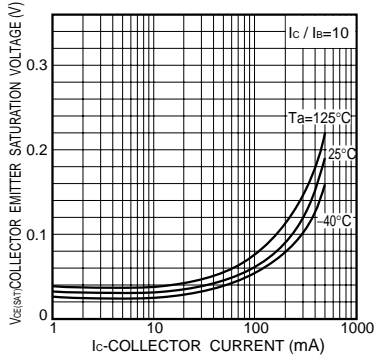


Fig.4 Collector emitter saturation voltage vs. collector current

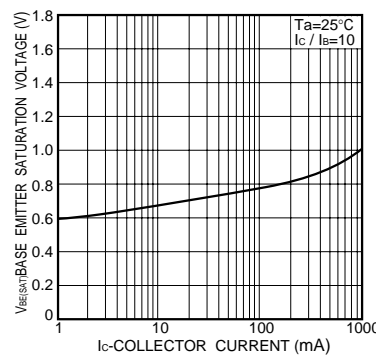


Fig.5 Base-emitter saturation voltage vs. collector current

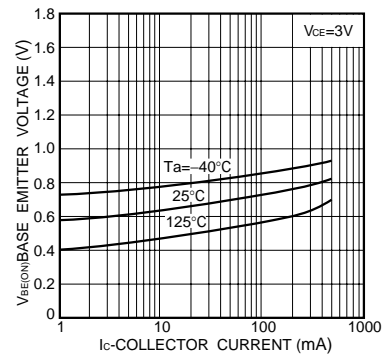


Fig.6 Grounded emitter propagation characteristics

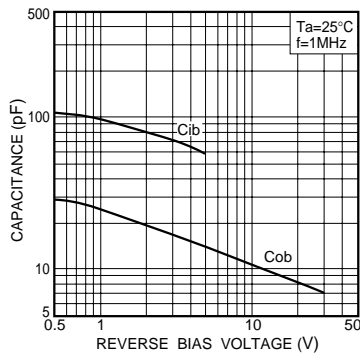


Fig.7 Input/output capacitance vs. voltage

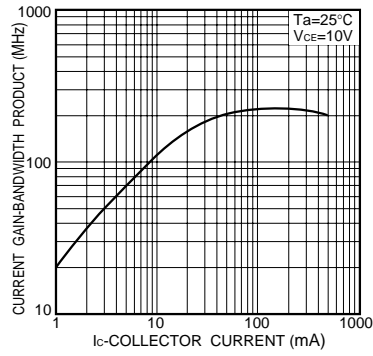


Fig.8 Gain bandwidth product vs. collector current