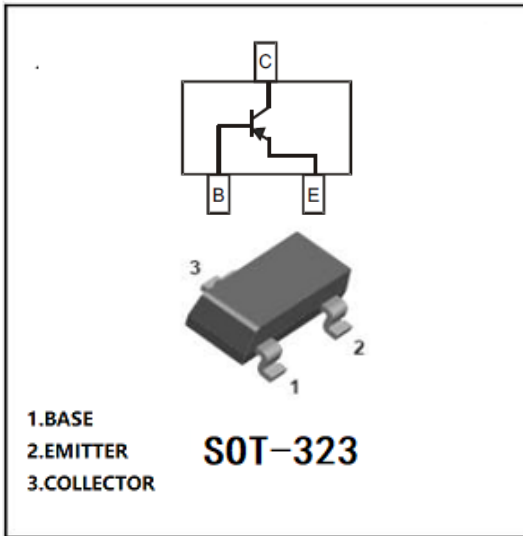


## PNP General Purpose Amplifier



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion

### Mechanical Data

- **Package:** SOT-323  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:**

MMSTA55	2H
MMSTA56	2GM

### ■Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$ MMSTA55 MMSTA56	-60 -80	V
Collector-Emitter Voltage	$V_{CEO}$ MMSTA55 MMSTA56	-60 -80	V
Emitter-Base Voltage	$V_{EBO}$	-4	V
Collector Current	$I_C$	-500	mA
Collector Power Dissipation	$P_C$	200	mW
Operation Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C



# MMSTA55 THRU MMSTA56

RoHS  
COMPLIANT

## ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	V <sub>CBO</sub>	V	IC=-100μA,IE=0 MMSTA55 MMSTA56	-60 -80	
Collector-emitter breakdown voltage	V <sub>CEO</sub>	V	IC = -1mA,IB=0 MMSTA55 MMSTA56	-60 -80	
Emitter-base breakdown voltage	V <sub>EBO</sub>	V	IE=-100μA,IC=0	-4	
Collector-base cut-off current	I <sub>CBO</sub>	μA	V <sub>CB</sub> =-60V,IE=0, V <sub>CB</sub> =-80V,IE=0, MMSTA55 MMSTA56		-0.1 -0.1
Collector-emitter cut-off current	I <sub>CES</sub>	μA	V <sub>CE</sub> =-60V, IB=0V,		-0.1
Emitter-base cut-off current	I <sub>EBO</sub>	uA	VEB=-4V,IC=0		-0.1
DC current gain	h <sub>FE</sub>		V <sub>CE</sub> =-1V,IC=-10mA	100	
	h <sub>FE</sub>		V <sub>CE</sub> =-1V,IC=-100mA	100	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	V	IC=-100mA,IB=-10mA		-0.25
Base-emitter saturation voltage	V <sub>BE(sat)*</sub>	V	IC=-100mA, IB=-10mA		-1.2

## ■Other Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	f <sub>T</sub>	MHz	V <sub>CE</sub> =-20V,IC=-10mA,f=100MHz	100	

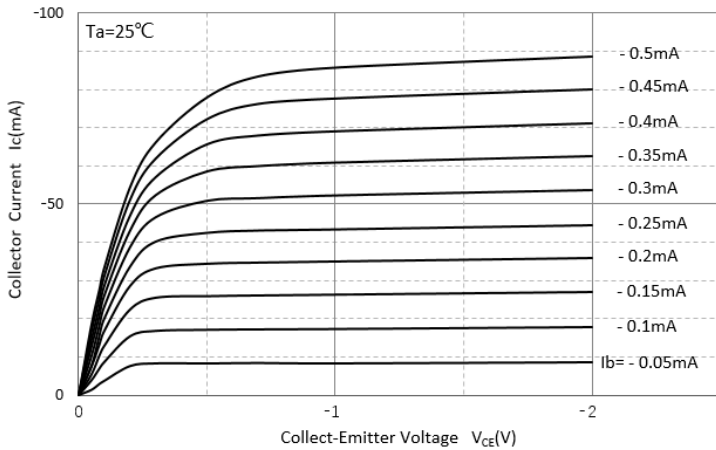
## ■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMSTA55 MMSTA56	F2	Approximate 0.005	3000	30000	120000	7" reel

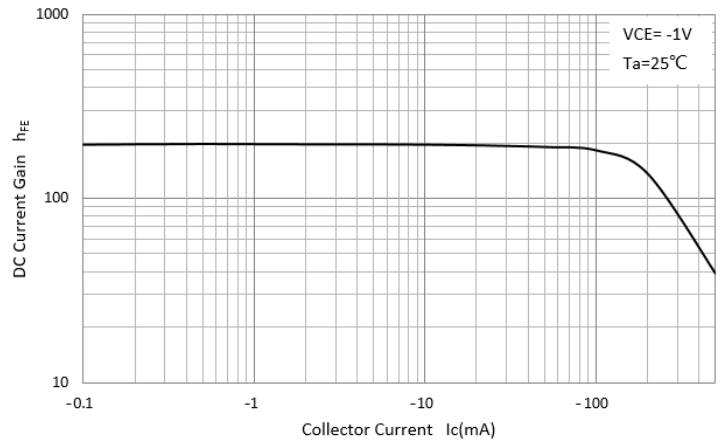


## ■ Characteristics(Typical)

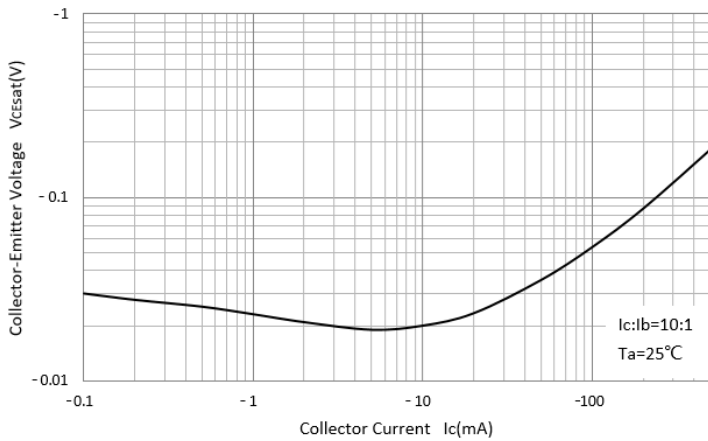
### Static Characteristic



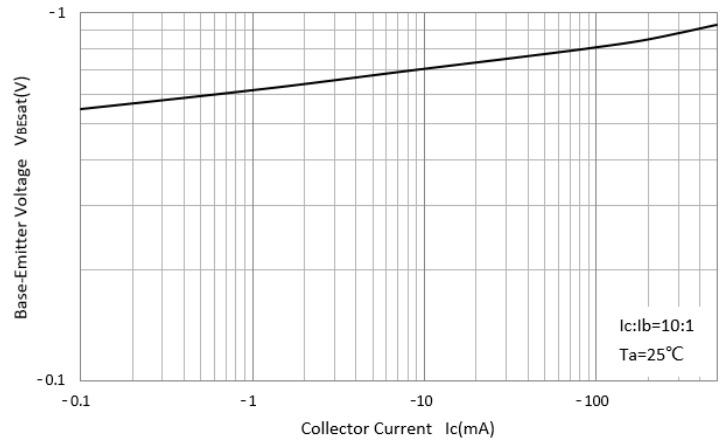
### DC Current Gain



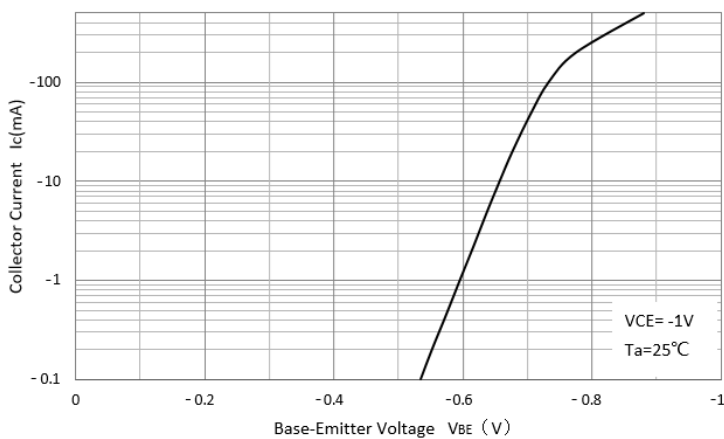
### Collector-Emittor Saturation Voltage



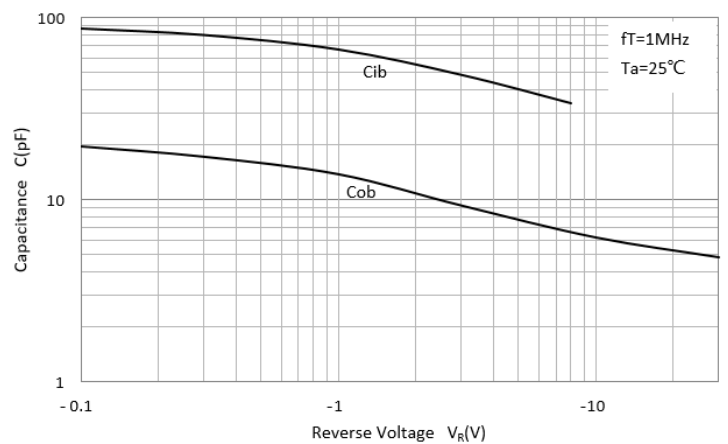
### Base-Emittor Saturation Voltage



### Base-Emittor On Voltage



### Cob/Cib-V<sub>CB</sub>/V<sub>EB</sub>

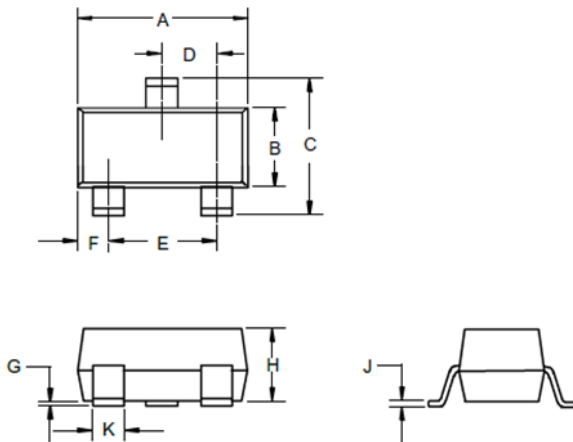




# MMSTA55 THRU MMSTA56

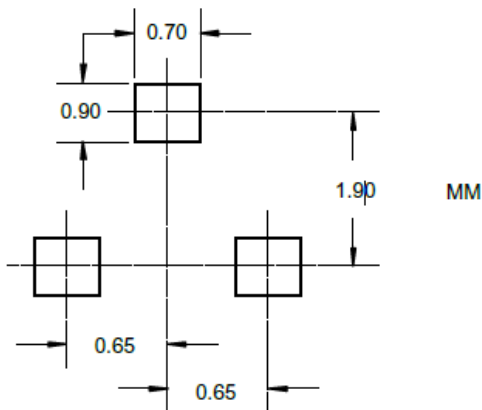
RoHS  
COMPLIANT

## ■ SOT-323 Package Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

## ■ SOT-323 Soldering Footprint





## Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.