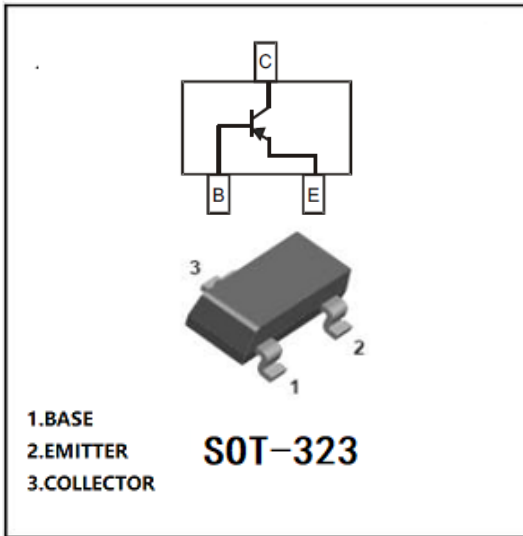


## PNP General Purpose Amplifier



### 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

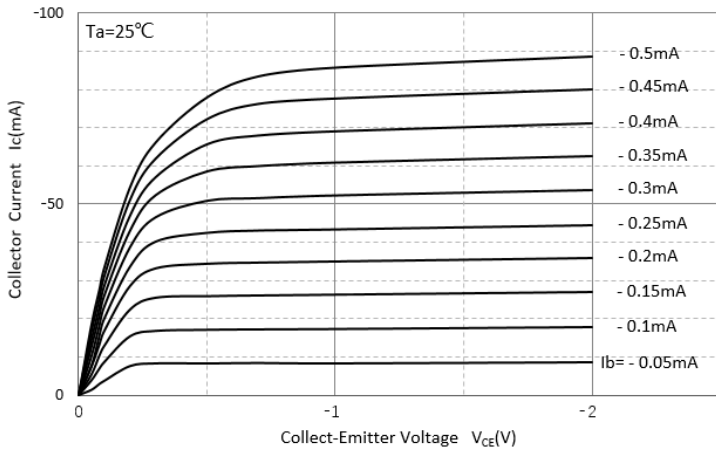


# MMSTA55 THRU MMSTA56

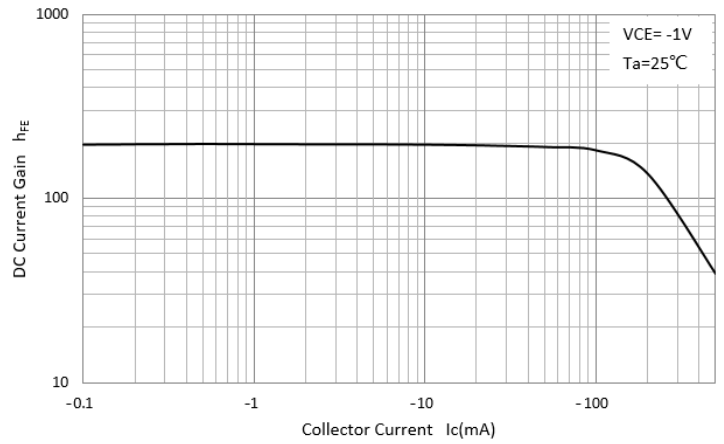
RoHS  
COMPLIANT

## ■ Characteristics(Typical)

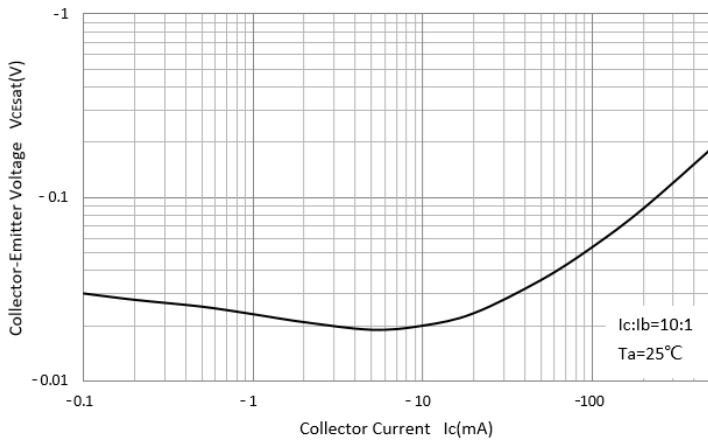
Static Characteristic



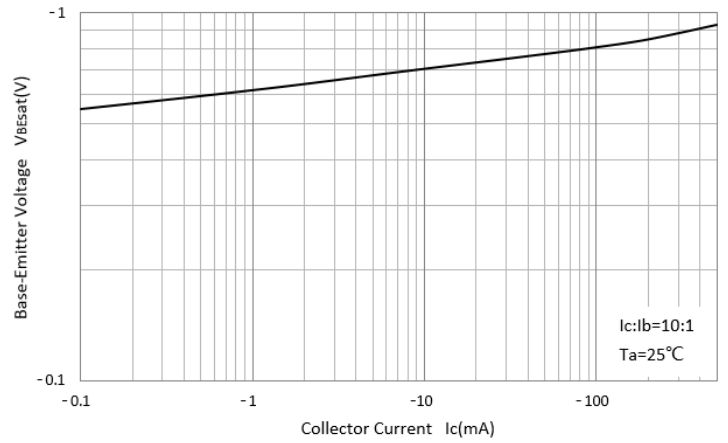
DC Current Gain



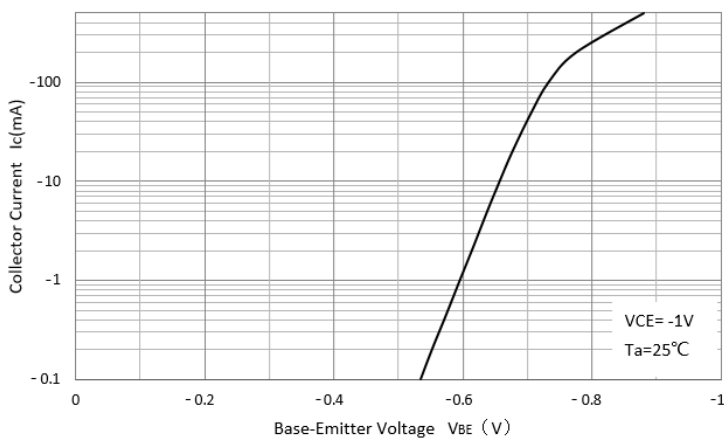
Collector-Emittor Saturation Voltage



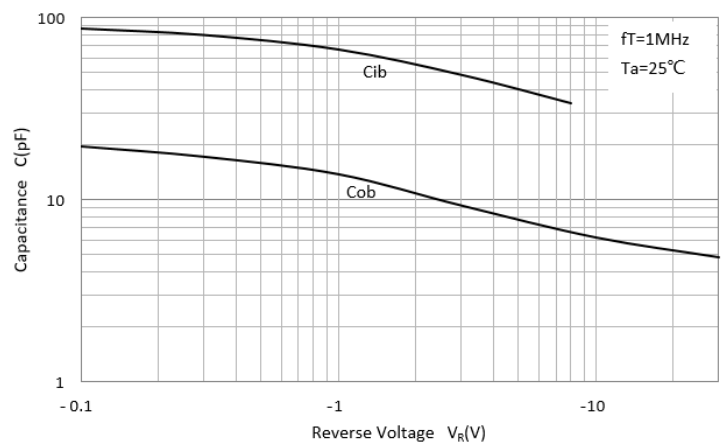
Base-Emittor Saturation Voltage



Base-Emittor On Voltage



$C_{ob}/C_{ib}-V_{CB}/V_{EB}$

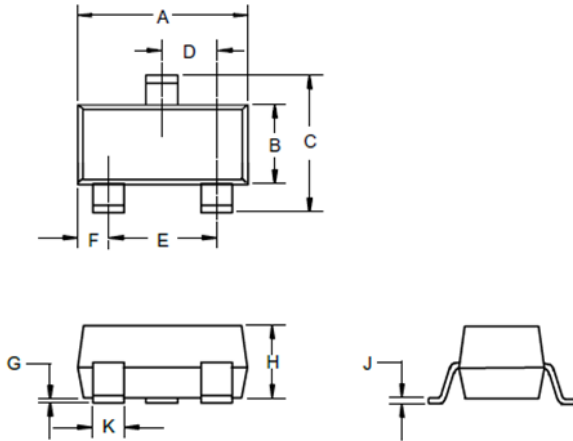




# MMSTA55 THRU MMSTA56

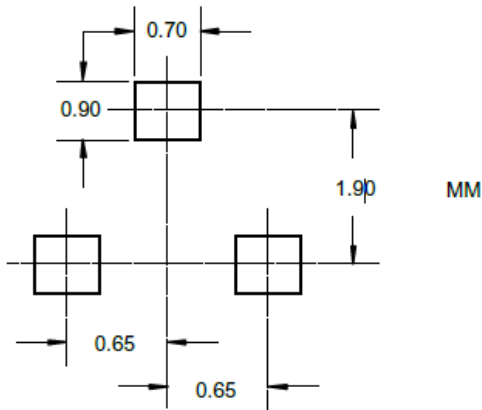
RoHS  
COMPLIANT

## ■ 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





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