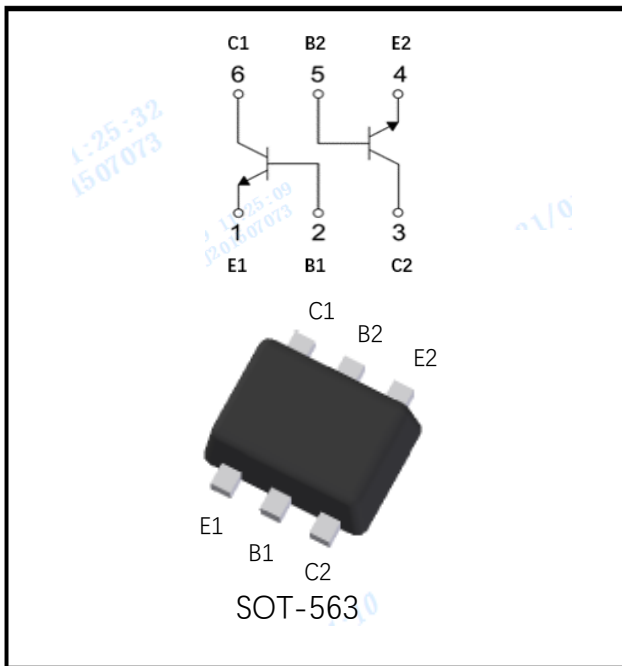


## Dual NPN Small Signal Transistor



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Surface mount package ideally Suited for Automatic Insertion
- NPN

### Mechanical Data

- **Package:** SOT-563
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** X1
- **Solid point:** E1 positioning point

### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	VCBO	V	IC=50μA,IE=0	60
Collector-Emitter Voltage	VCEO	V	IC =1mA,IB=0	50
Emitter-Base Voltage	VEBO	V	IE=50μA,IC=0	7
Collector Current -Continuous	IC	mA		150
Total Device Dissipation	PC	mW		150
Junction Temperature	Tj	°C		150
Storage Temperature	TSTG	°C		-55 to +150



# EMX1

## ■ Electrical Characteristics (Ta=25°C unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-base breakdown voltage	VCBO	V	IC=50μA,IE=0	60		
Collector-emitter breakdown voltage	VCEO	V	IC =1mA,IB=0	50		
Emitter-base breakdown voltage	VEBO	V	IE=50μA,IC=0	7		
Collector cut-off current	ICBO	nA	VCB=60V,IB=0			100
Collector cut-off current	IEBO	nA	VEB=7V, IC=0			100
DC current gain	hFE		VCE=6V,IC=1mA	120		560
Collector-emitter saturation voltage	VCE(sat)	V	IC=50mA,IB=5mA			0.4
Transition frequency	fT	MHz	VCE=12V,IC=-2mA,f=100MHz		180	
Output capacitance	Cob	pF	VCB=12V,IE=0A,f=1MHz		2	3.5

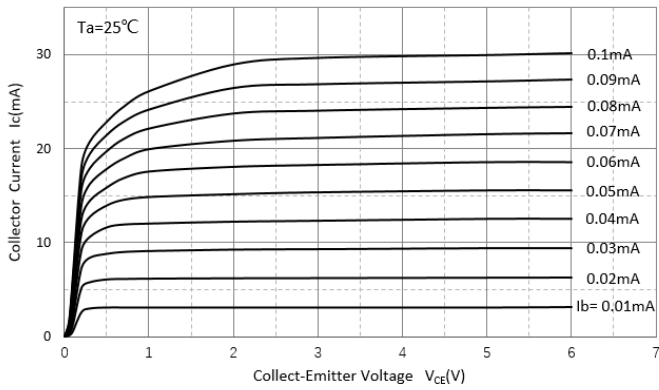
## ■ Ordering Information (Example)

Preferred P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
EMX1	F2	Approximate 0.0035	3000	30000	120000	7" reel

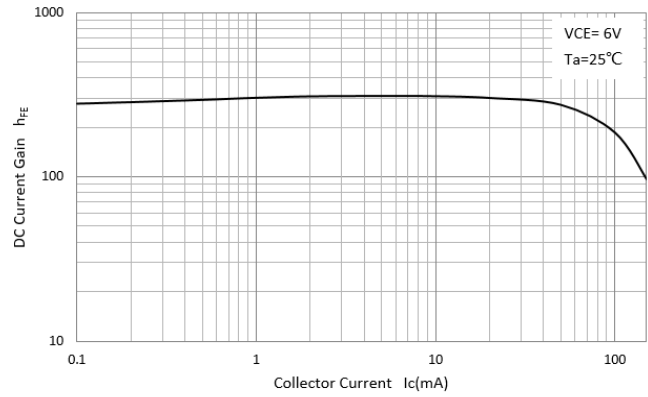


## ■ Characteristics (Typical)

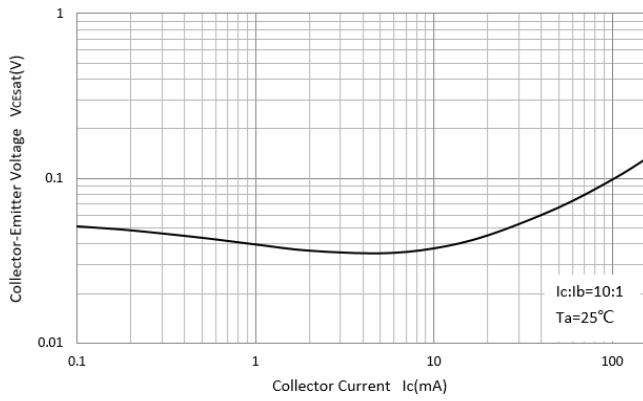
### Static Characteristic



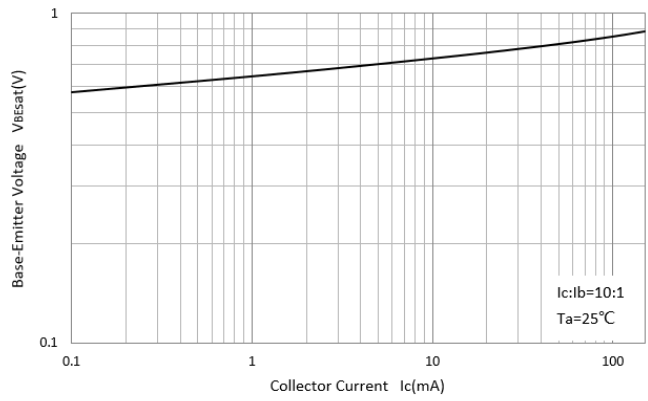
### DC Current Gain



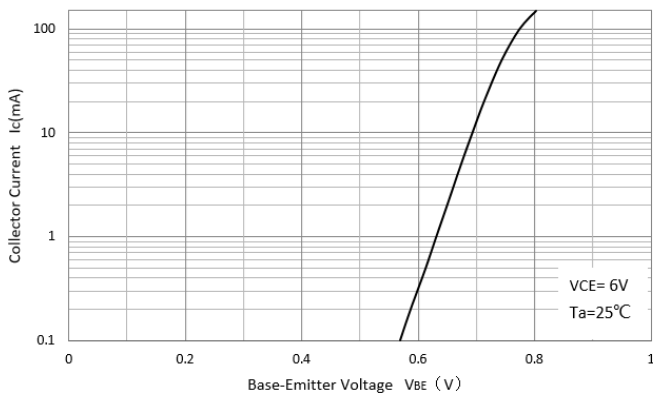
### Collector-Emmitter Saturation Voltage



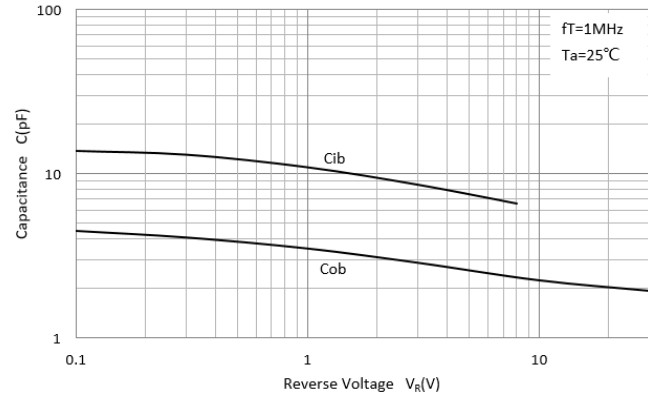
### Base-Emmitter Saturation Voltage



### Base-Emmitter On Voltage

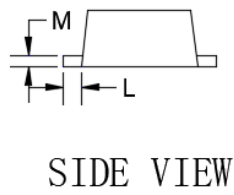
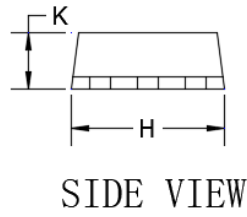
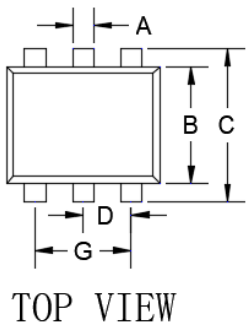


### Cob/Cib- $V_{CB}/V_{EB}$



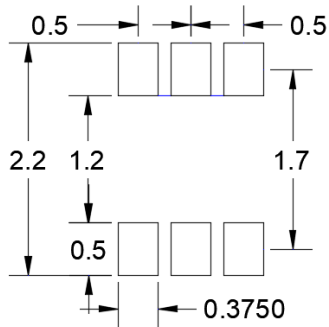
## ■ Outline Dimensions

SOT-563



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.006	0.011	0.150	0.300
B	0.043	0.051	1.100	1.300
C	0.059	0.067	1.500	1.700
D	0.016	0.024	0.400	0.600
G	0.035	0.043	0.900	1.100
H	0.059	0.067	1.500	1.700
K	0.021	0.026	0.550	0.650
L	0.004	0.011	0.100	0.300
M	0.004	0.007	0.100	0.180

## ■ Suggested Pad Layout



单位: mm

SUGGESTED SOLDER PAD LAYOUT



# EMX1

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