

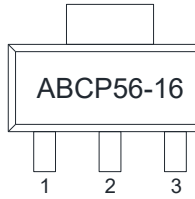
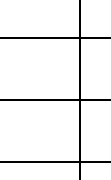
## 1. Features

- Power dissipation of 500mW
- High stability and high reliability

## 2. Mechanical Data

- SOT-223 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

## 3. Pin configuration

Pin	Function	Outline	Schematic
1	Base		
2	Emitter		
3	Collector		

## 4. Specification

### Absolute Maximum Rating & Thermal Characteristics

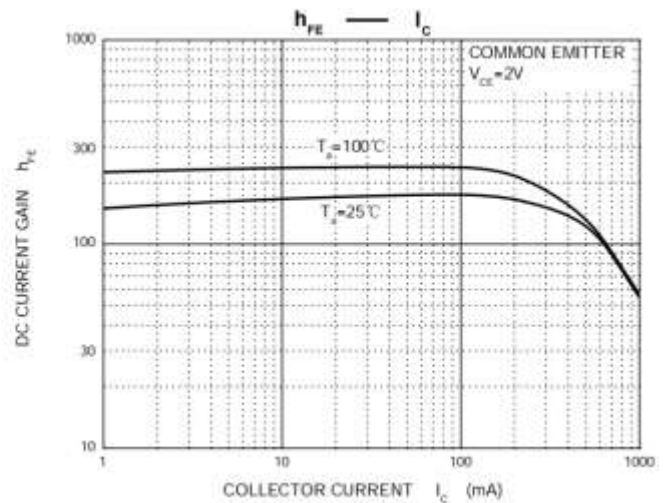
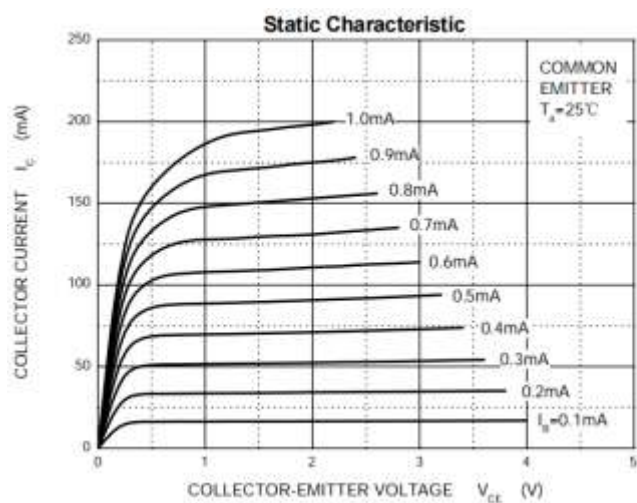
Ratings at 25 °C ambient temperature unless otherwise specified.

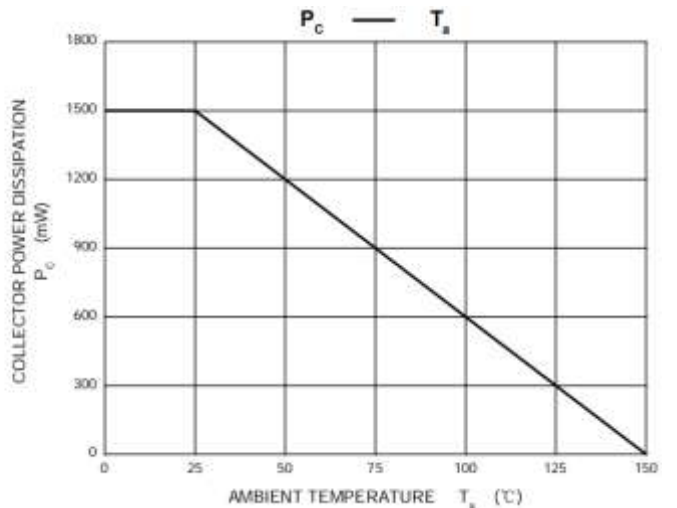
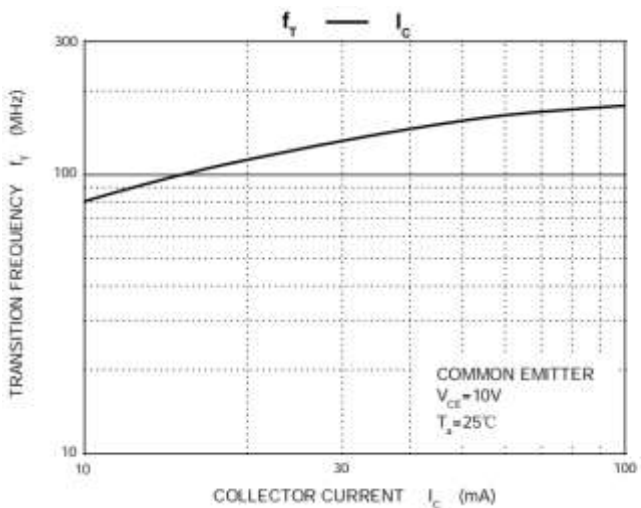
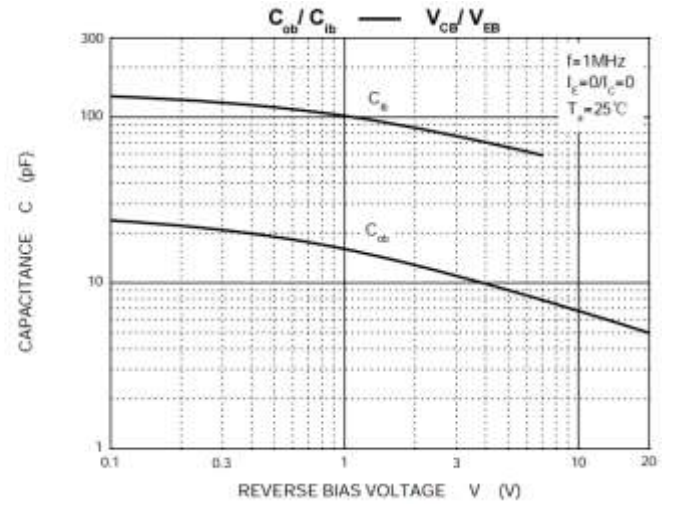
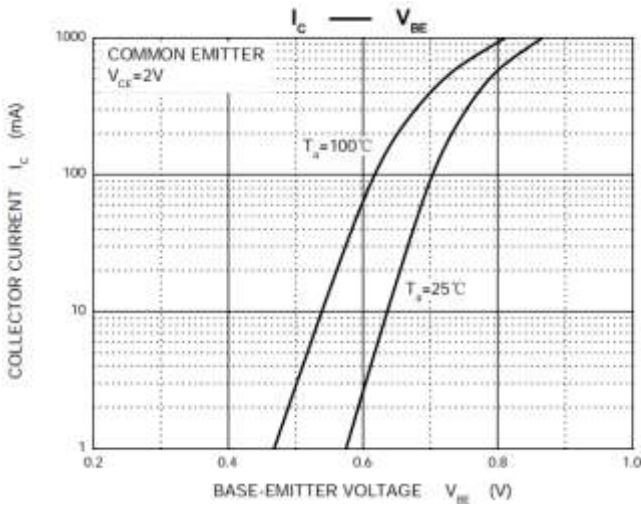
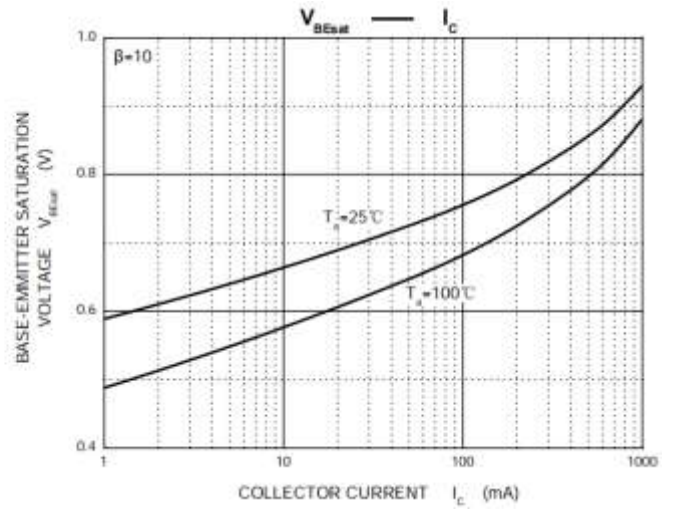
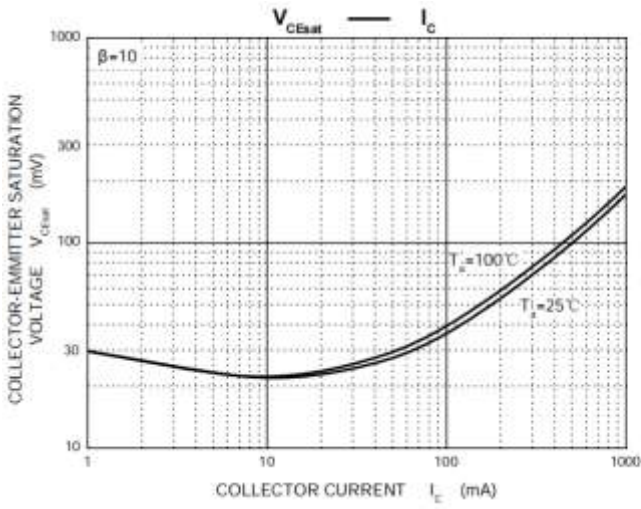
Parameters	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	80	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current-Continuous	$I_C$	1000	mA
Collector Power Dissipation	$P_C$	500	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{STG}$	-55~150	°C

Electrical Characteristics(At TA = 25°C unless otherwise specified)

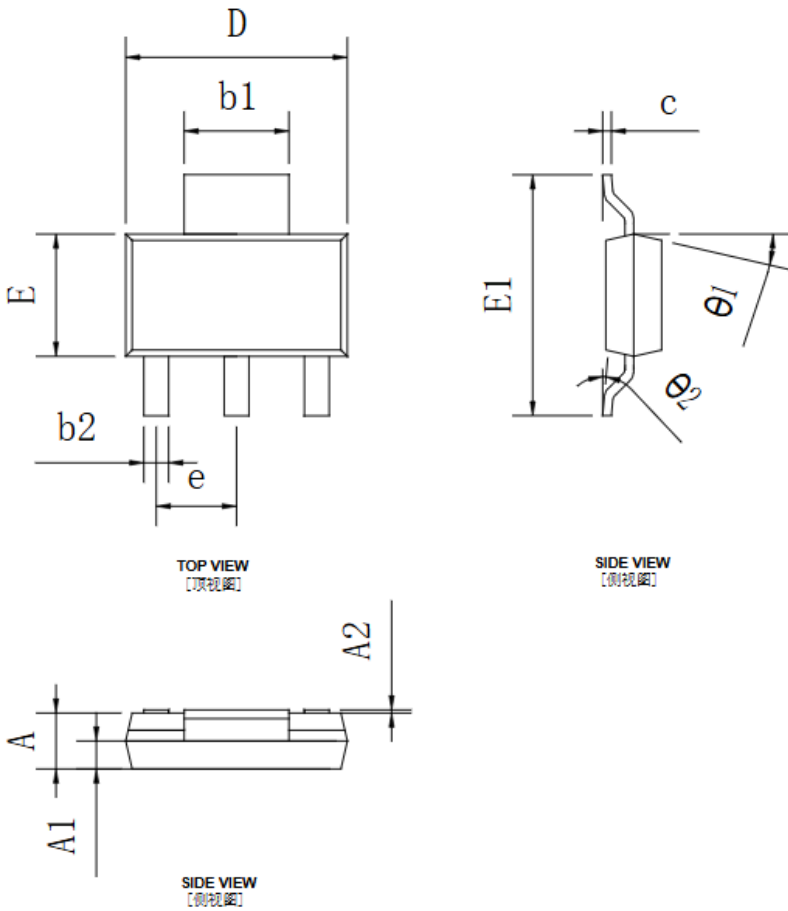
Parameters	Symbols	Test Condition	Limits			
			Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CE}=80V, I_E=0$			100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			100	nA
DC current gain	$h_{FE1}$	$V_{CE}=2V, I_C=150mA$	63		250	
	$h_{FE2}$	$V_{CE}=2V, I_C=5mA$	40			
	$h_{FE2}$	$V_{CE}=2V, I_C=500mA$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			0.50	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$			1.20	V
Transition frequency	$f_T$	$V_{CE}=5V, I_C=10mA, f=100MHz$	100			MHz

5. Typical Characteristic



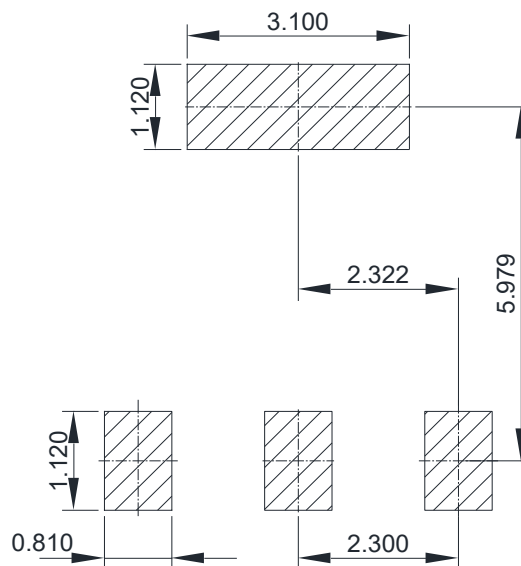


6. Dimension and Patterns (SOT-223)



编号	尺寸 (mm)		
	Min	TYP	Max
A	1.550	1.600	1.650
A1	0.770	0.800	0.830
A2	0.000	0.050	0.100
D	6.300	6.350	6.400
E	3.450	3.500	3.550
E1	6.800	6.900	7.070
b1	2.950	3.000	3.050
b2	0.660	0.710	0.760
e	2.250	2.300	2.350
c	0.200	0.250	0.300
$\theta_1$	13° TYP		
$\theta_2$	0°	--	7°

7. Recommended Soldering Footprint



DIMENSIONS: MILLIMETERS

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