

ELM2SA8570CA PNP Epitaxial planar transistor

<http://www.elm-tech.com>

■General description

ELM2SA8570CA is designed for general purpose switching and amplification applications.

■Features

- Low current : $I_c(\text{max.}) = -200\text{mA}$
- Low voltage : $BV_{ce0} = -50\text{V}$
- Package : SOT-23

■Maximum absolute ratings

$T_a = 25^\circ\text{C}$

Parameter	Symbol	Limit	Unit
Collector-base voltage	V_{cbo}	-50	V
Collector-emitter voltage	V_{ceo}	-50	V
Emitter-base voltage	V_{ebo}	-6	V
Collector current (DC)	I_c	-200	mA
Collector current (Pulse)	I_{cp}	-500	mA
Base current (Pulse)	I_{bp}	-200	mA
Power dissipation	P_d	250	mW
Thermal resistance, junction-to-ambient	$R_{\theta ja}$	500	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_j	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$

■Selection guide

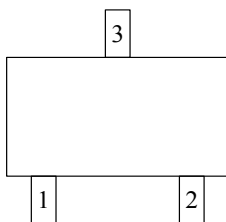
ELM2SA8570CA-S

Symbol		
a	Product name	ELM2SA8570
b	Package	C : SOT-23
c	Product version	A
d	Taping direction	S: Please refer to page 7

ELM2SA8570 C A - S
 ↑ ↑ ↑ ↑
 a b c d

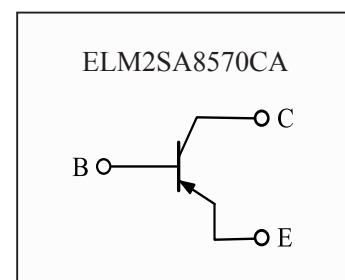
■Pin configuration

SOT-23(TOP VIEW)



Pin No.	Pin name	Pin description
1	B	Base
2	E	Emitter
3	C	Collector

■Standard circuit



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■Electrical characteristics

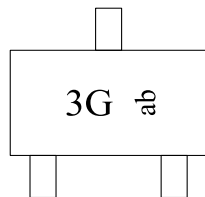
Top=25°C

Symbol	Condition	Min.	Typ.	Max.	Unit
BVcbo	Ic=-100μA	-50	-	-	V
BVceo	Ic=-1mA	-50	-	-	V
BVebo	Ie=-10μA	-6	-	-	V
Icbo	Vcb=-30V	-	-	-15	nA
Iebo	Veb=-6V	-	-	-100	nA
*Vce(sat) 1	Ic=-10mA, Ib=-0.5mA	-	-72	-200	mV
*Vce(sat) 2	Ic=-100mA, Ib=-5mA	-	-220	-400	mV
*Vbe(sat) 1	Ic=-10mA, Ib=-0.5mA	-	-700	-	mV
*Vbe(sat) 2	Ic=-100mA, Ib=-5mA	-	-830	-	mV
*Vbe(on) 1	Vce=-5V, Ic=-2mA	-600	-640	-750	mV
*Vbe(on) 2	Vce=-5V, Ic=-10mA	-	-	-770	mV
*Hfe	Vce=-5V, Ic=-2mA	420	-	800	-
ft	Vce=-5V, Ie=-10mA, f=100MHz	100	-	-	MHz
Cob	Vcb=-10V, Ie=0A, f=1MHz	-	3.7	-	pF

* Pulse test: Pulse width ≤ 380μs, duty cycle ≤ 2%.

■Marking

SOT-23

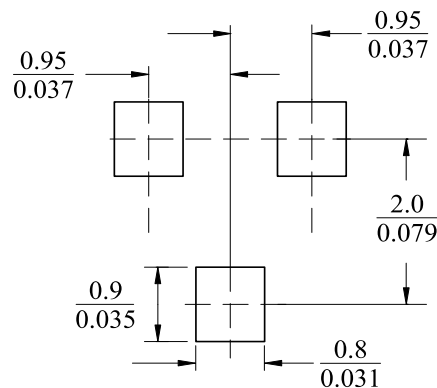


Mark	Content
3G	Product code
a b	Date code

■Shipping

- 3000 pcs / Tape & Reel

■Recommended soldering footprint

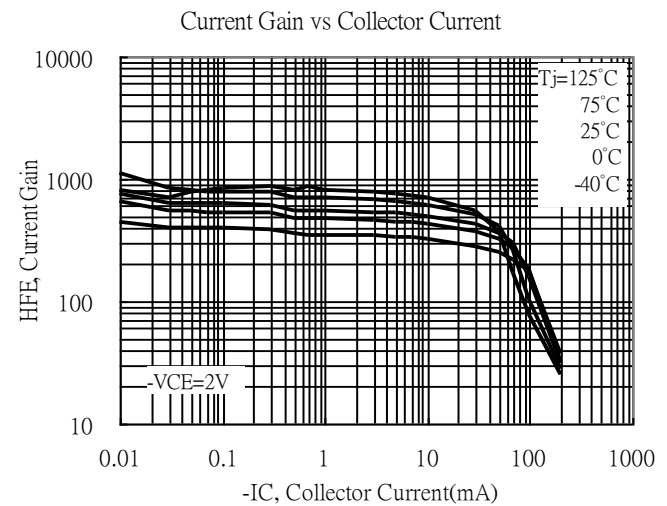
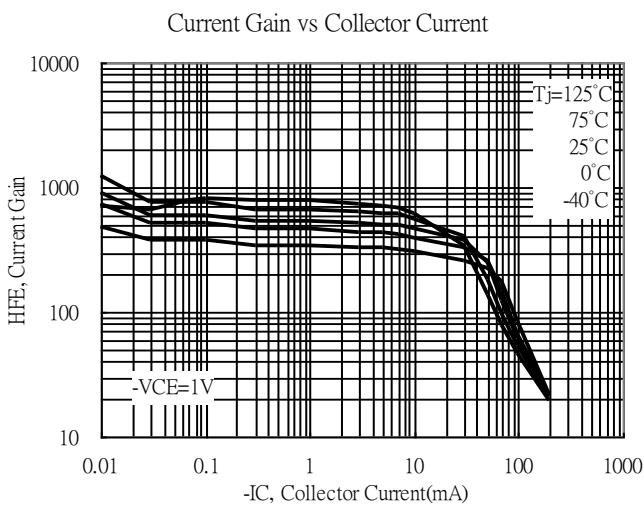
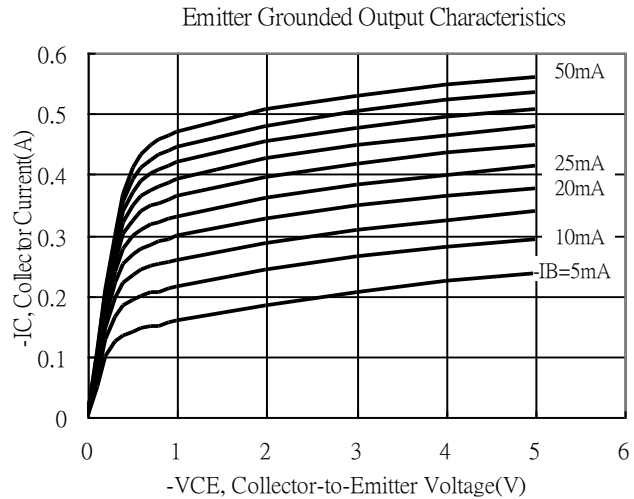
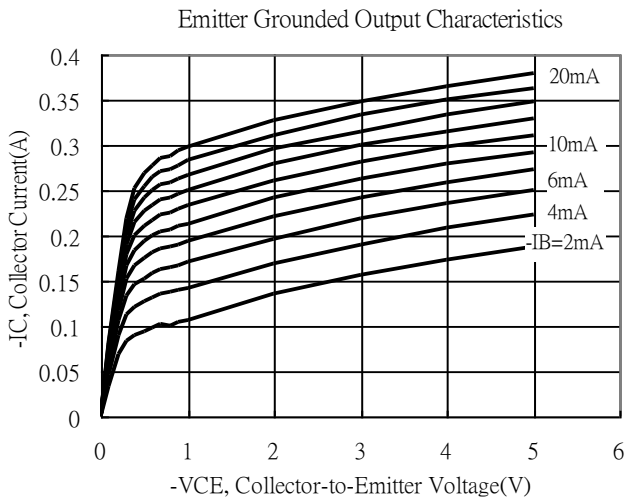
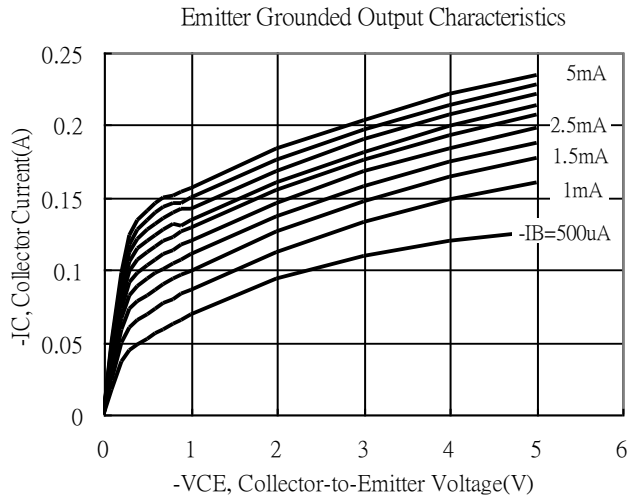
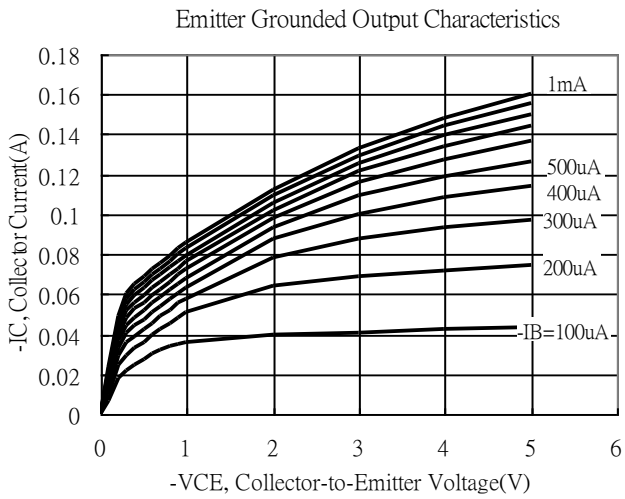


Unit : $\frac{\text{mm}}{\text{inches}}$

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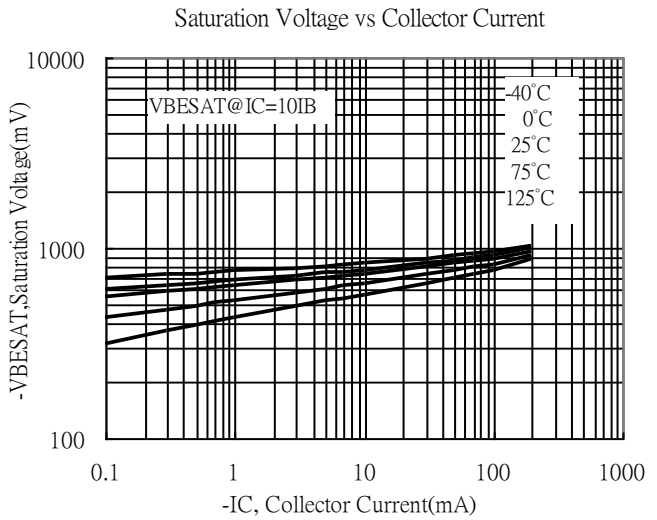
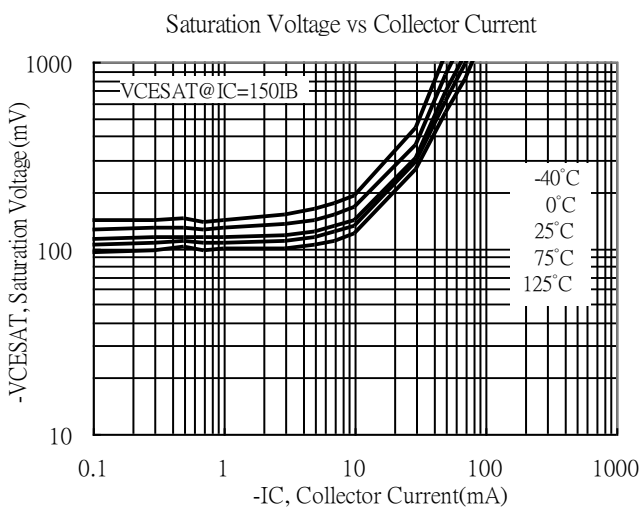
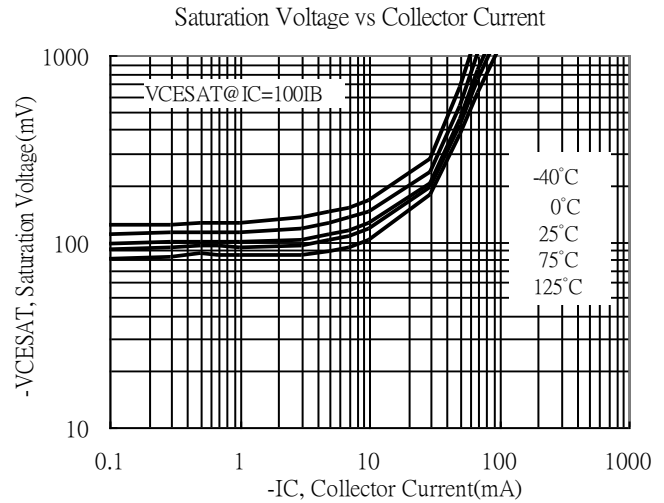
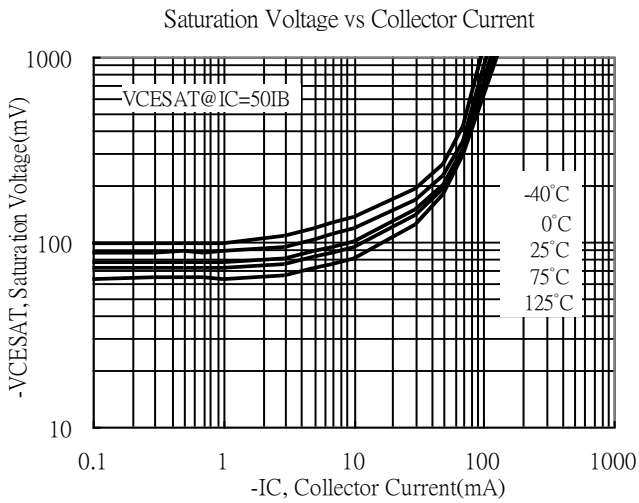
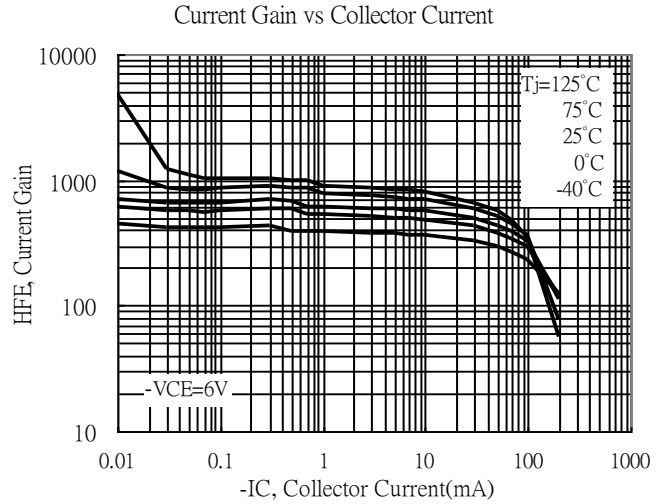
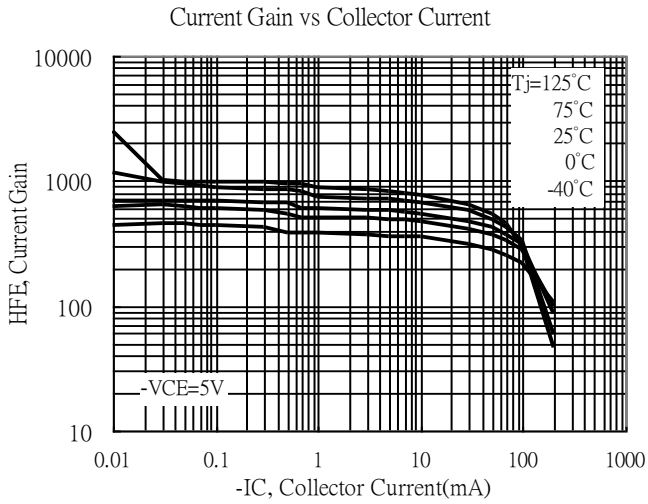
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■ Typical characteristics



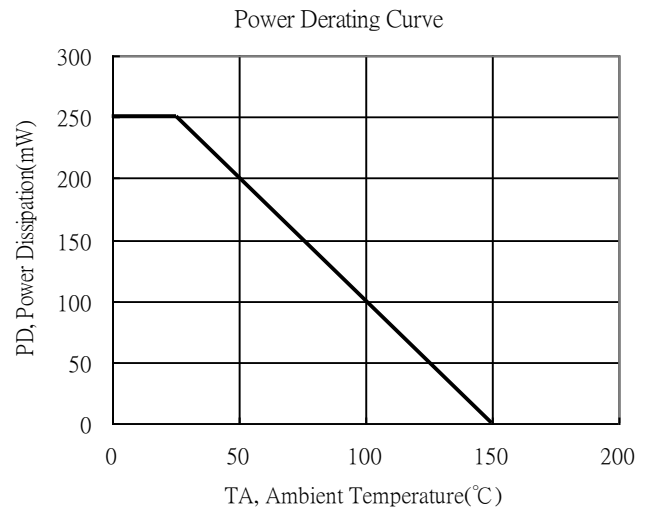
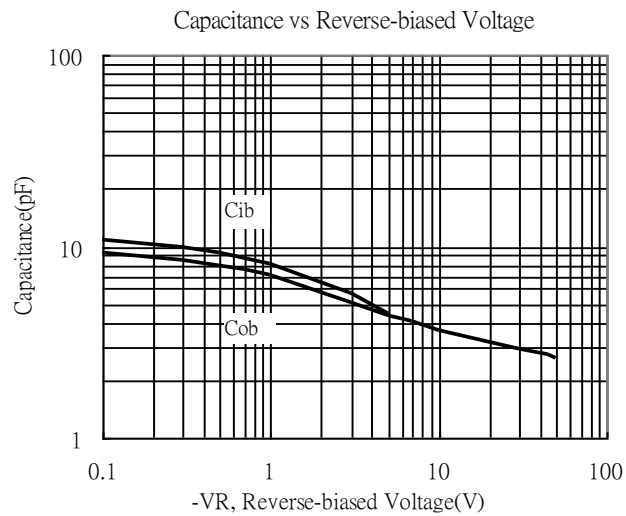
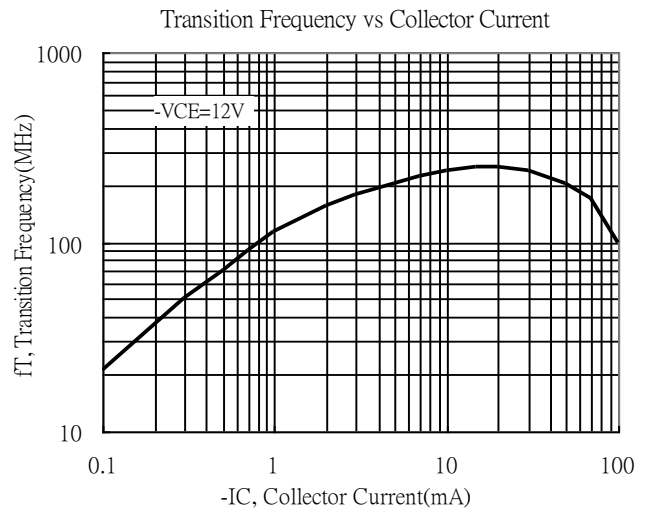
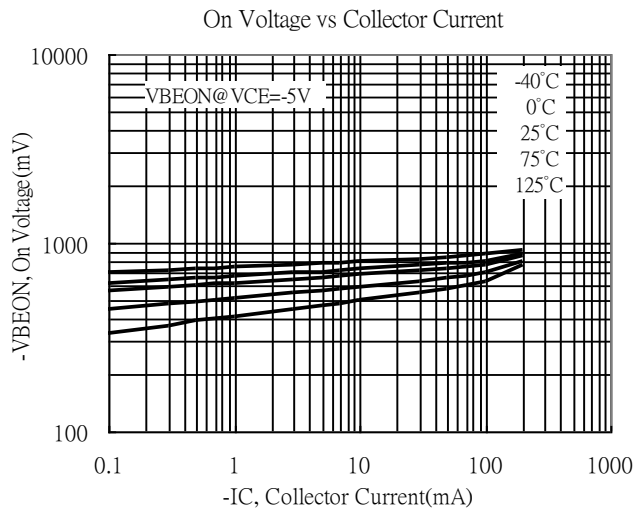
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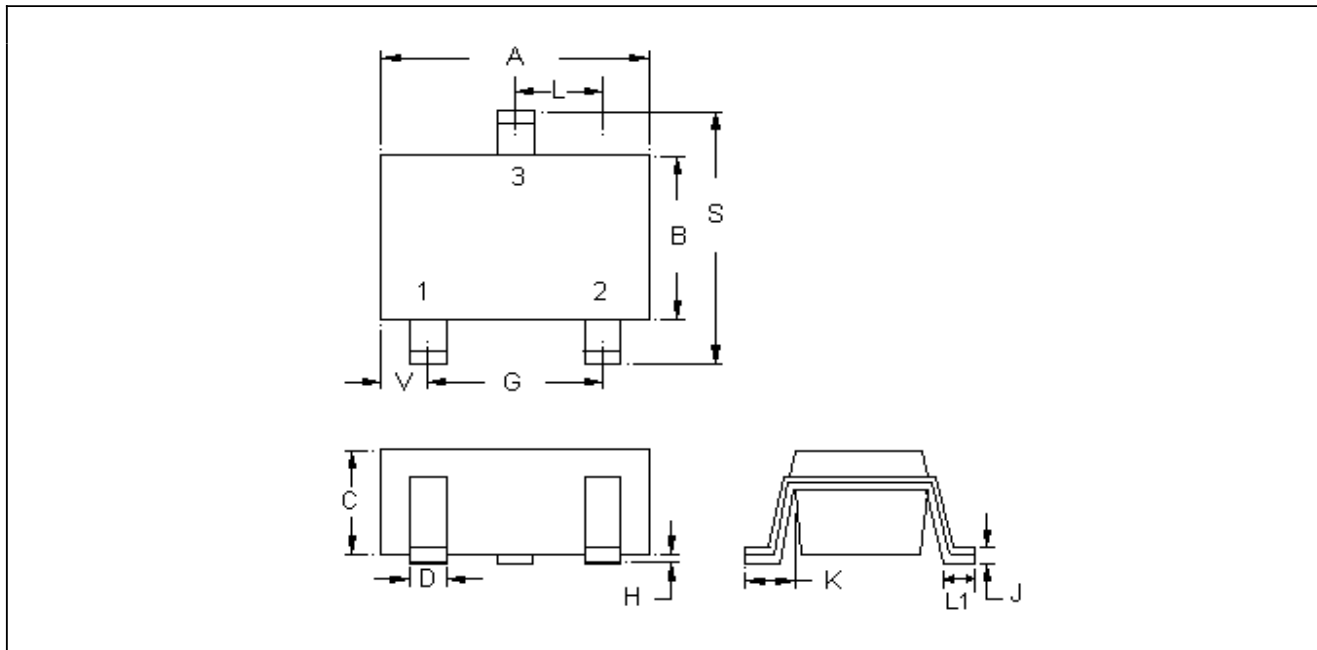
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■SOT-23 dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0032	0.0079	0.08	0.20
B	0.0472	0.0669	1.20	1.70	K	0.0118	0.0266	0.30	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1161	2.10	2.95
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0000	0.0040	0.00	0.10	L1	0.0118	0.0197	0.30	0.50

Notes : 1.Controlling dimension : millimeters.

2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.

Material :

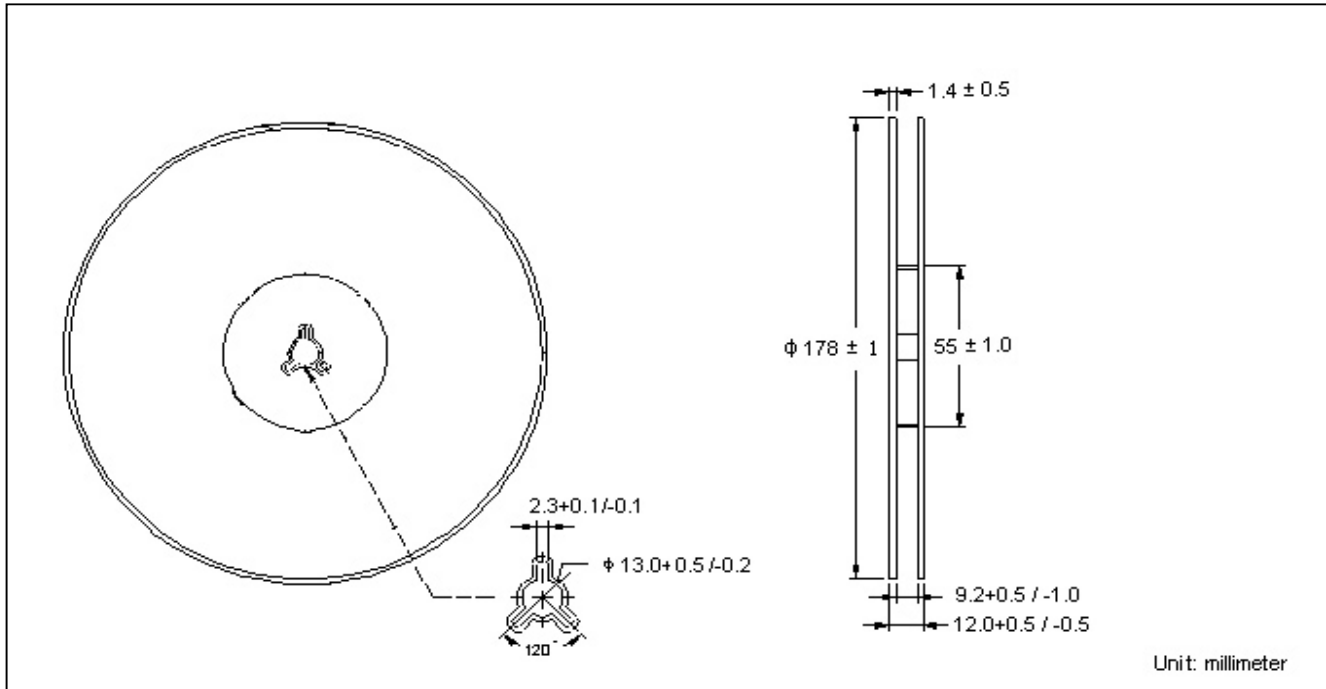
- Lead : Pure tin plated.
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0.

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■ Reel & carrier tape dimension

• Reel



• Carrier tape

