



2SA1179N/2SC2812N

Bipolar Transistor

(-50V, (-)150mA, Low $V_{CE(sat)}$, (PNP)NPN Single CPA

ON Semiconductor®

<http://onsemi.com>

Features

- Miniature package facilitates miniaturization in end products
- High breakdown voltage

Specifications () : 2SA1179N

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

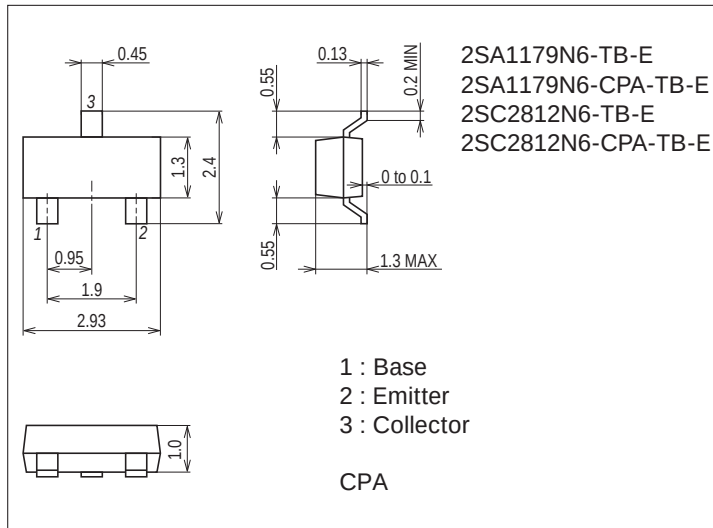
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-)55	V
Collector-to-Emitter Voltage	V_{CEO}		(-)50	V
Emitter-to-Base Voltage	V_{EBO}		(-)5	V
Collector Current	I_C		(-)150	mA
Collector Current (Pulse)	I_{CP}		(-)300	mA
Base Current	I_B		(-)30	mA
Collector Dissipation	P_C		200	mW
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

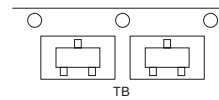
7053-001



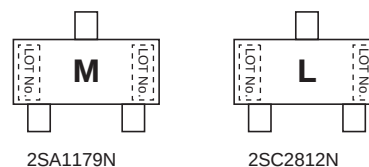
Product & Package Information

- Package : CPA
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

Packing Type: TB



Marking



2SA1179N / 2SC2812N

Electrical Characteristics at Ta=25°C

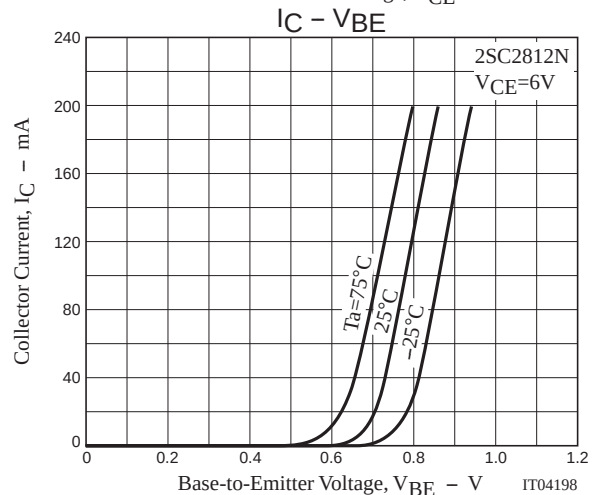
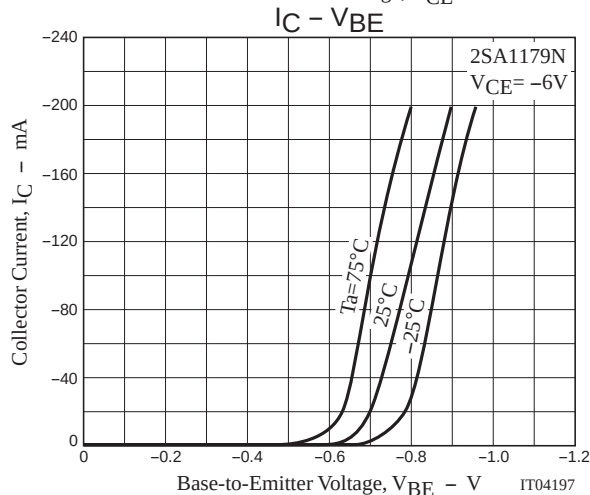
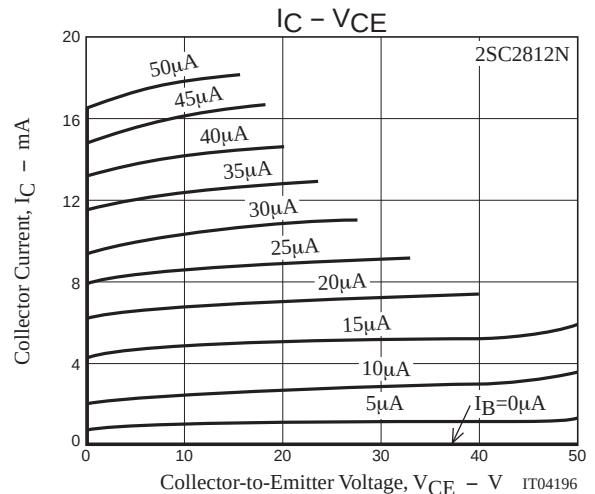
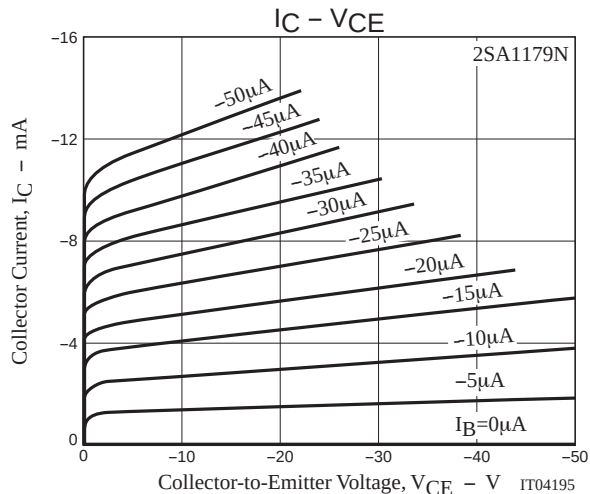
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)35V, I_E=0A$			$(-)0.1$	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0A$			$(-)0.1$	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)6V, I_C=(-)1mA$	200		400	
Gain-Bandwidth Product	f_T	2SC2812N : $V_{CE}=6V, I_C=1mA$		100		MHz
		2SA1179N : $V_{CE}=-6V, I_C=-10mA$		(180)		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)6V, f=1MHz$		(4.0)3.0		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)50mA, I_B=(-)5mA$		$(-0.15)0.1$	$(-)0.5$	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)50mA, I_B=(-)5mA$			$(-)1.0$	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0A$	$(-)55$			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	$(-)50$			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0A$	$(-)5$			V

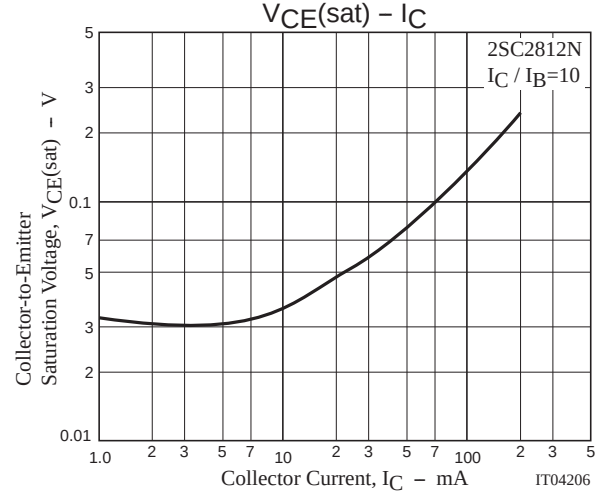
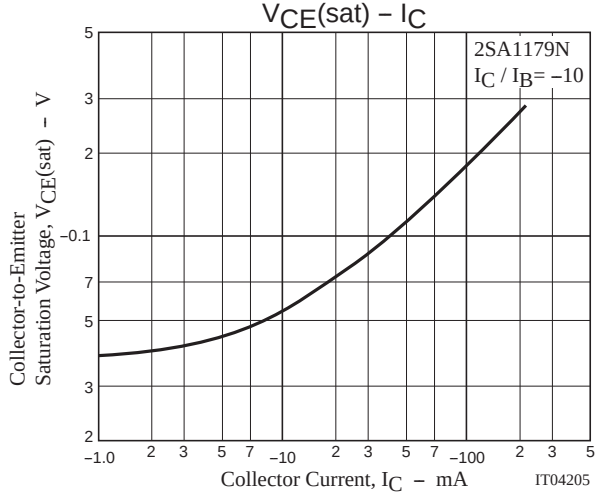
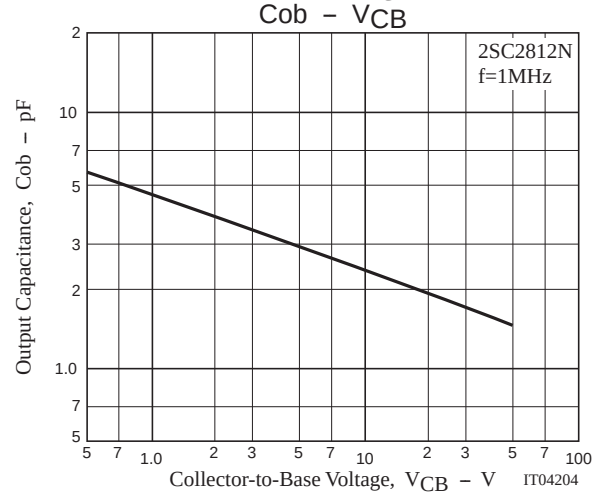
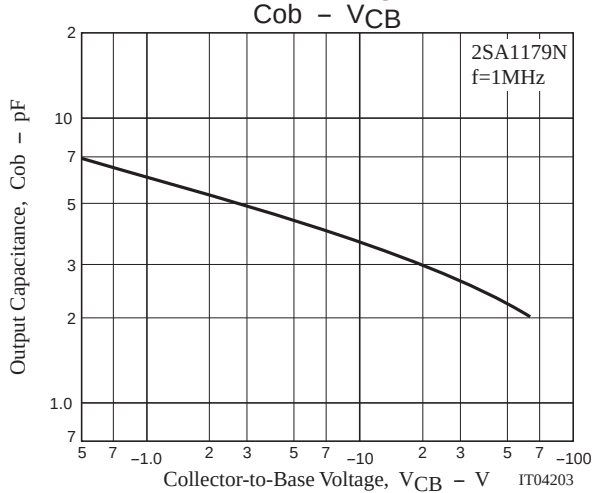
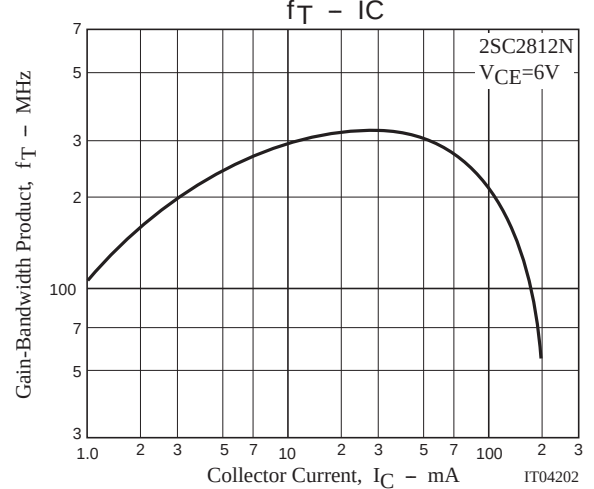
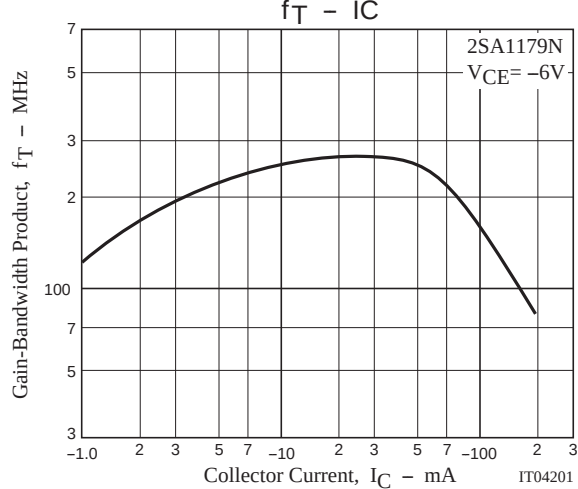
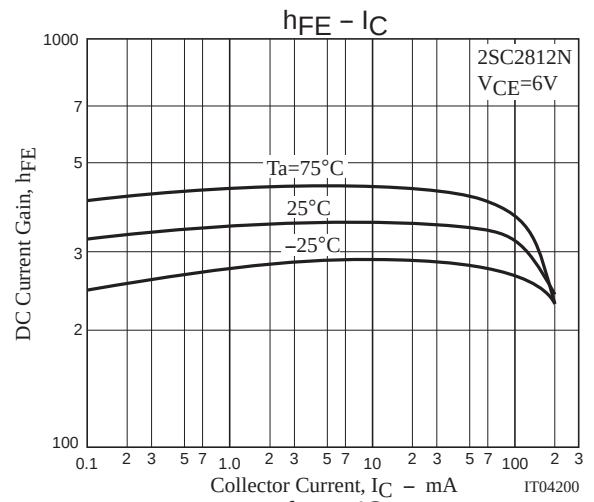
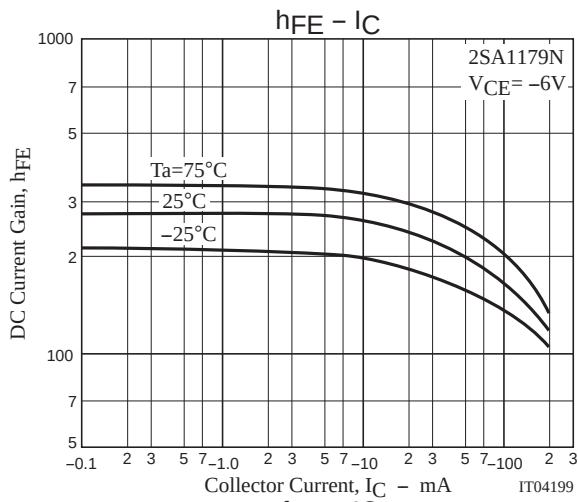
* : The 2SA1179N / 2SC2812N are classified by 1mA h_{FE} as follows :

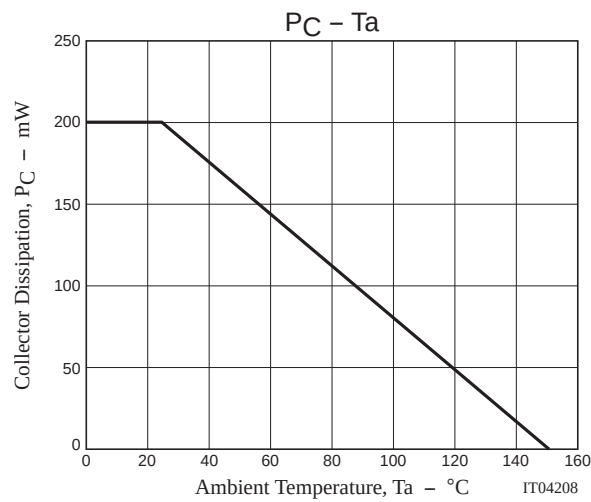
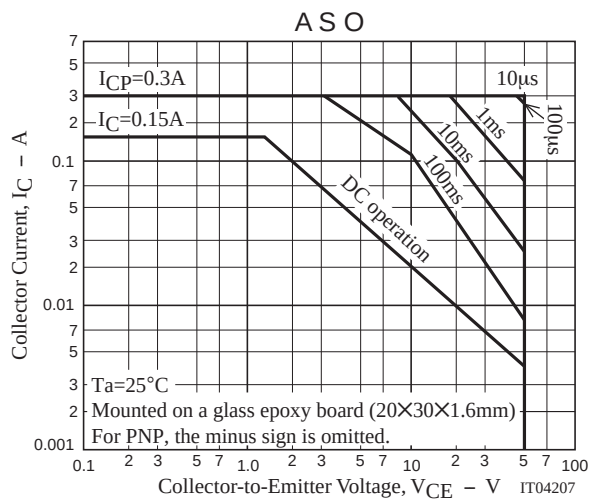
Rank	6
h_{FE}	200 to 400

Ordering Information

Device	Package	Shipping	memo
2SA1179N6-TB-E	CPA	3,000pcs./reel	Pb Free
2SA1179N6-CPA-TB-E	CPA	3,000pcs./reel	
2SC2812N6-TB-E	CPA	3,000pcs./reel	
2SC2812N6-CPA-TB-E	CPA	3,000pcs./reel	







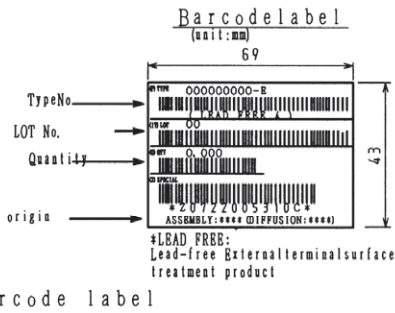
Embossed Taping Specification

2SA1179N6-TB-E, 2SA1179N6-CPA-TB-E, 2SC2812N6-TB-E, 2SC2812N6-CPA-TB-E

1. Packing format

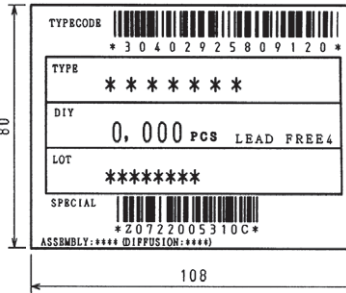
Storage package Outline name	Carriertape Typenumber	Maximum Number of Devices contained (PCS)			Packing format	
		Reel	Innerbox	Outerbox	Innerbox BOX (C-1)	Outerbox BOX (A-7)
CPA	CPA	3,000	15,000	90,000	5 reels contained Dimensions: mm (external) 183×72×185	6 innerboxes contained Dimensions: mm (external) 440×195×210

Packing method



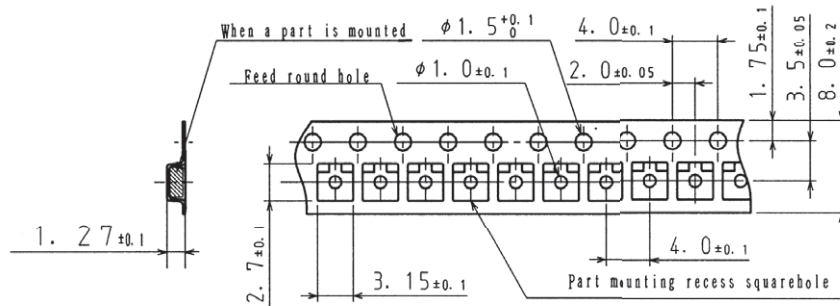
Shipping Label

It is a label at the time of factory shipments
The form of a label may change in physical
distribution process

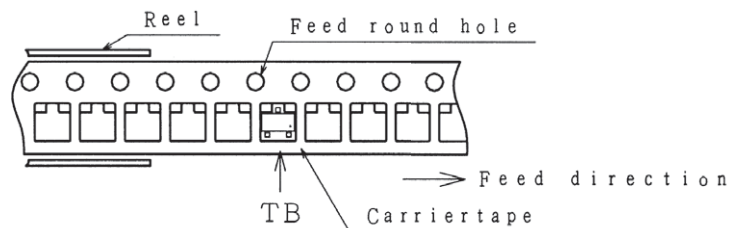


2. Taping structure

2-1. Carrier tape size (unit: mm)



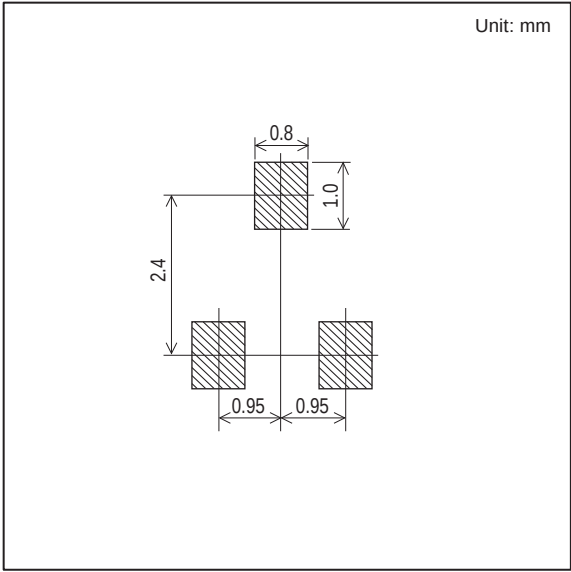
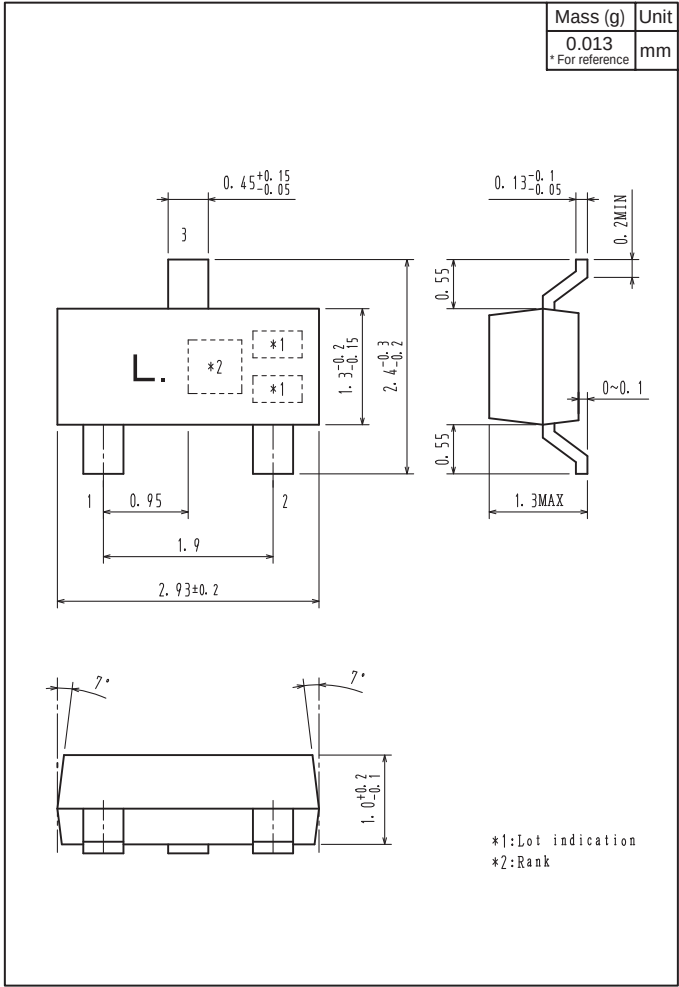
2-2. Parts placement direction



Outline Drawing

2SA1179N6-TB-E, 2SA1179N6-CPA-TB-E, 2SC2812N6-TB-E, 2SC2812N6-CPA-TB-E

Land Pattern Example



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