



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

2SC4134 — NPN Epitaxial Planar Silicon Transistor

High-Voltage Switching Applications

Applications

- Power supplies, relay drivers, lamp drivers

Features

- Adoption FBET, MBIT processes
- Fast switching speed
- Small and slim package permitting 2SC4134-applied sets to be made more compact
- High breakdown voltage and large current capacity

Specifications

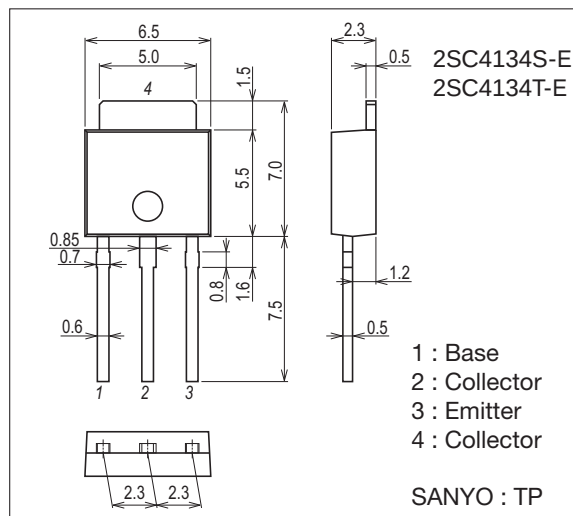
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		120	V
Collector-to-Emitter Voltage	VCEO		100	V
Emitter-to-Base Voltage	VEBO		6	V
Collector Current	IC		1	A
Collector Current (Pulse)	ICP		2	A

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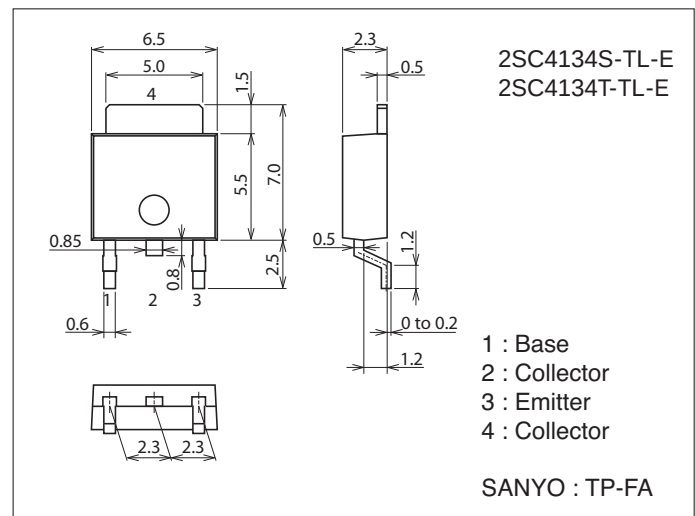
Package Dimensions unit : mm (typ)

7518-003



Package Dimensions unit : mm (typ)

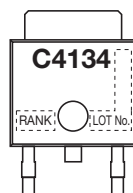
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Product & Package Information

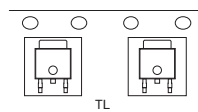
- Package : TP
- JEITA, JEDEC : SC-64, TO-251
- Minimum Packing Quantity : 500 pcs./bag

Marking (TP, TP-FA)

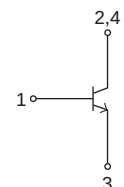


- Package : TP-FA
- JEITA, JEDEC : SC-63, TO-252
- Minimum Packing Quantity : 700 pcs./reel

Packing Type (TP-FA) : TL



Electrical Connection



SANYO Semiconductor Co., Ltd.

<http://www.sanyosemi.com/en/network/>

2SC4134

Continued from preceding page.

Parameter	Symbol	Conditions	Ratings	Unit
Collector Dissipation	P _C		0.8	W
		T _c =25°C	10	W
Junction Temperature	T _j		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

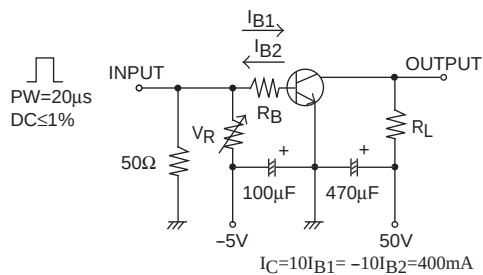
Electrical Characteristics at T_a=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	V _{CB} =100V, I _E =0A			100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0A			100	nA
DC Current Gain	h _{FE}	V _{CE} =5V, I _C =100mA	100*		400*	
Gain-Bandwidth Product	f _T	V _{CE} =10V, I _C =100mA		120		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		8.5		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =400mA, I _B =40mA		0.1	0.4	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =400mA, I _B =40mA		0.85	1.2	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =10μA, I _E =0A	120			V
Collector-to-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =1mA, R _{BE} =∞	100			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =10μA, I _C =0A	6			V
Turn-ON Time	t _{on}	See specified Test Circuit.		80		ns
Storage Time	t _{stg}			850		ns
Fall Time	t _f			50		ns

* : The 2SC4134 is classified by 100mA h_{FE} as follows :

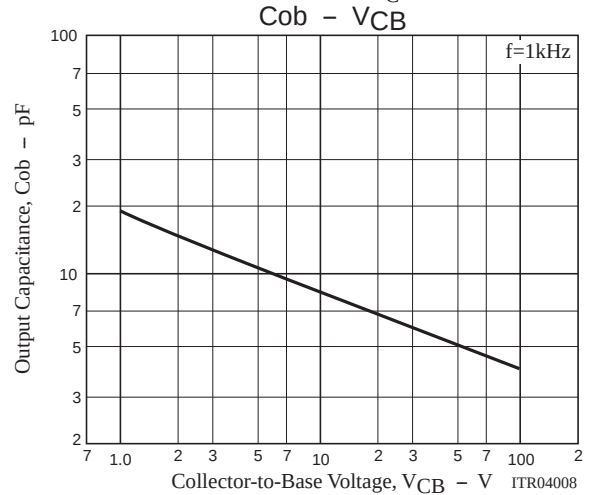
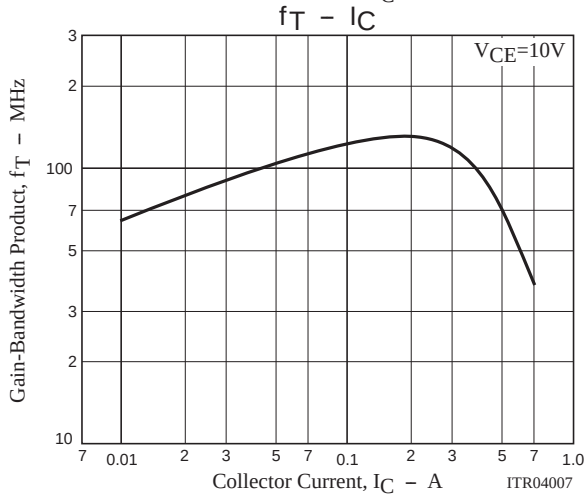
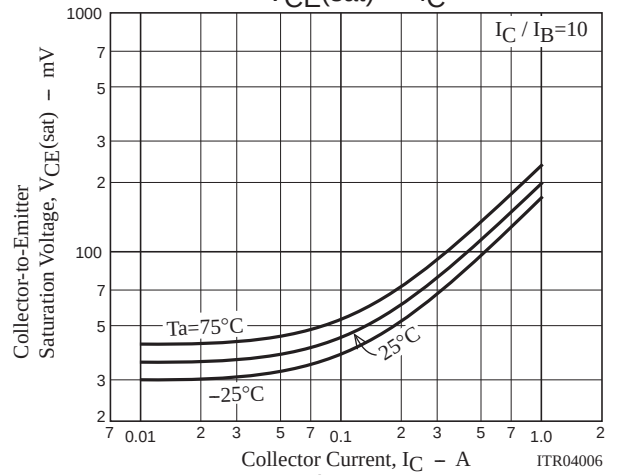
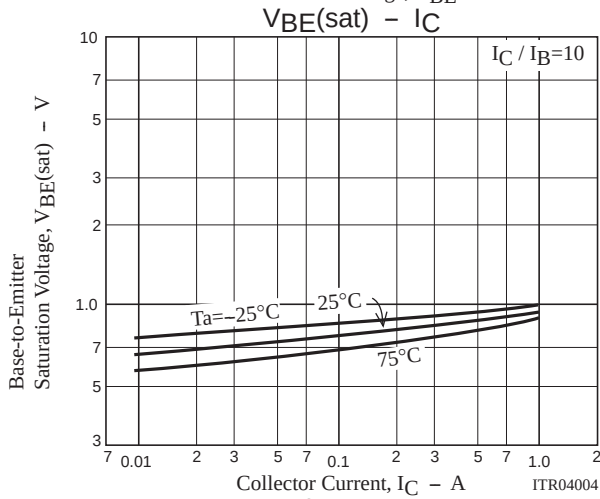
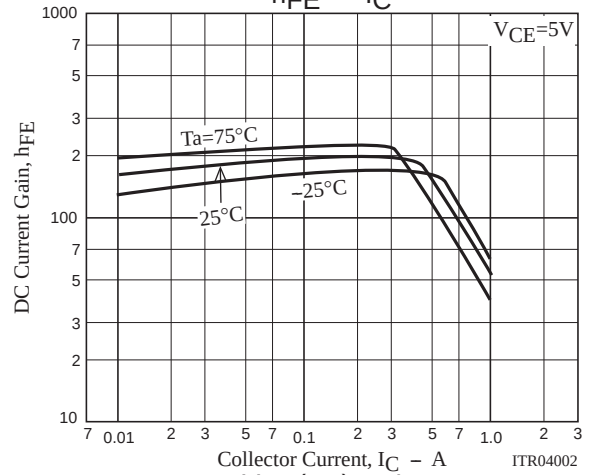
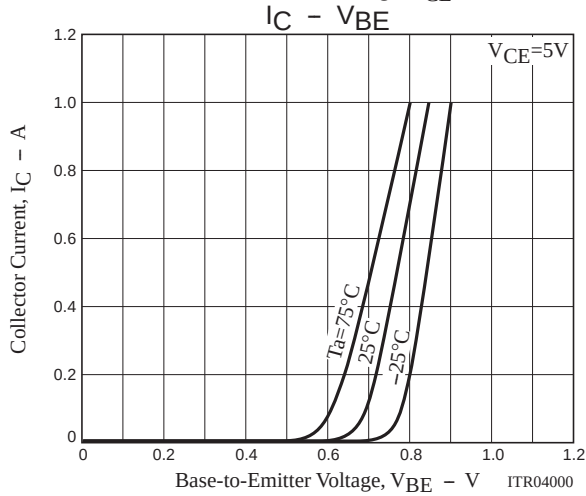
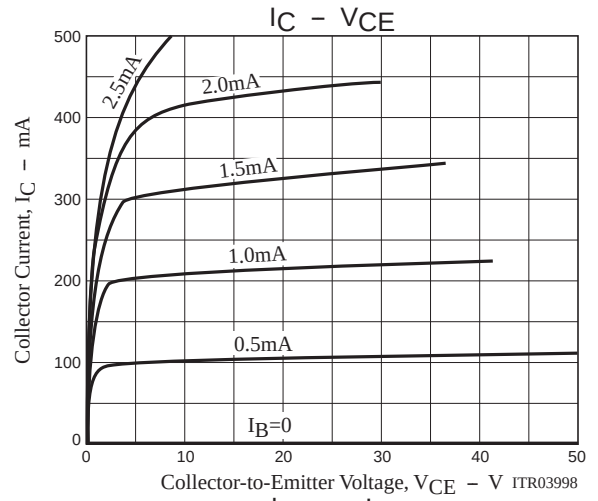
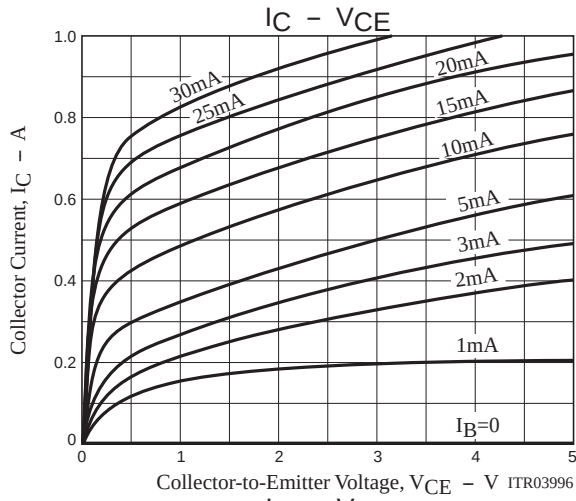
Rank	R	S	T
h _{FE}	100 to 200	140 to 280	200 to 400

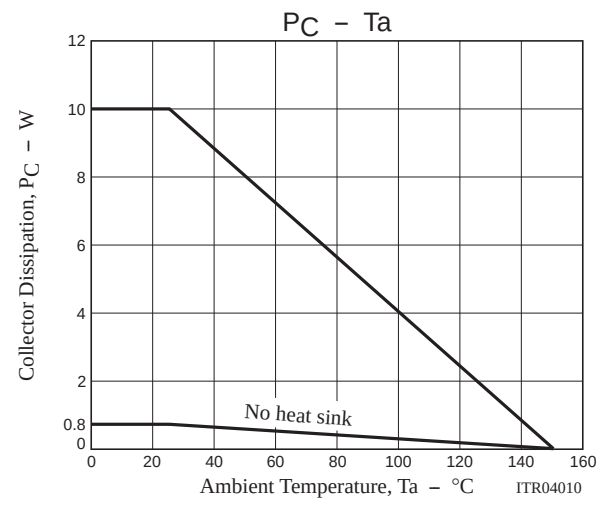
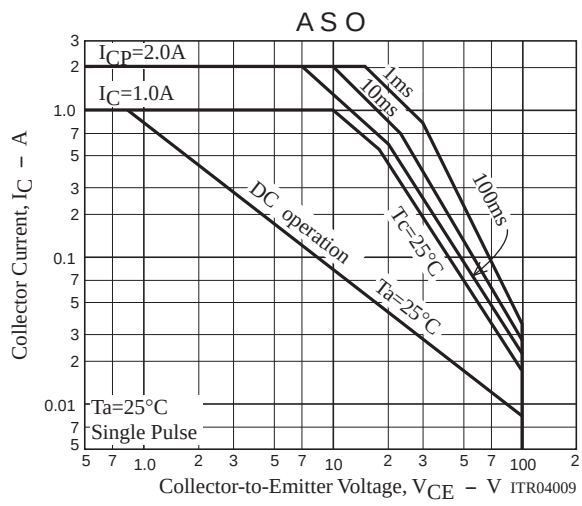
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
2SC4134S-E	TP	500pcs./bag	Pb Free
2SC4134T-E	TP	500pcs./bag	
2SC4134S-TL-E	TP-FA	700pcs./reel	
2SC4134T-TL-E	TP-FA	700pcs./reel	





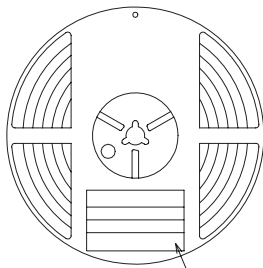
Taping Specification

2SC4134S-TL-E, 2SC4134T-TL-E

Packing Format

Package Name	Carrier Type Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
TP-FA	TP	700	2,100	12,600	3 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Packing method



Reel label

Type No.
LOT No.
Quantity
Origin

Reel label, Inner box label
(unit:mm)

(P) TYPE	000000000
(1) LOT	00
(Q) QTY	0,000 (1) LEAD FREE *
(Z) SPECIAL	*20722005310C*
ASSEMBLY:****	(DIFFUSION:****)

Outer box label

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

TYPE CODE	
TYPE	
QTY	0,000 PCS (1) LEAD FREE *
LOT	
PACKAGE	
SPECIAL	
ASSEMBLY:****	(DIFFUSION:****)

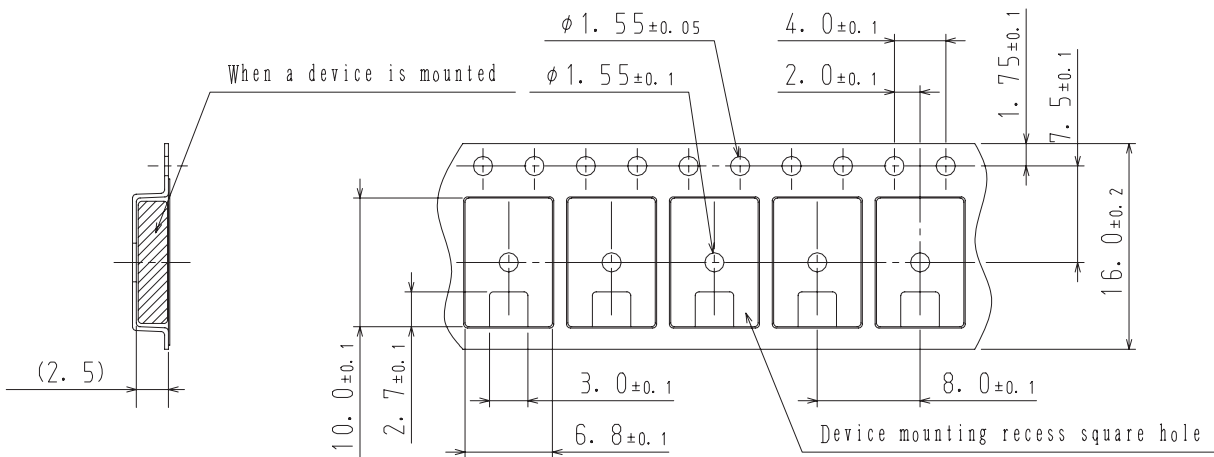
NOTE (1)

The LEAD FREE * description shows that the surface
treatment of the terminal is lead free.

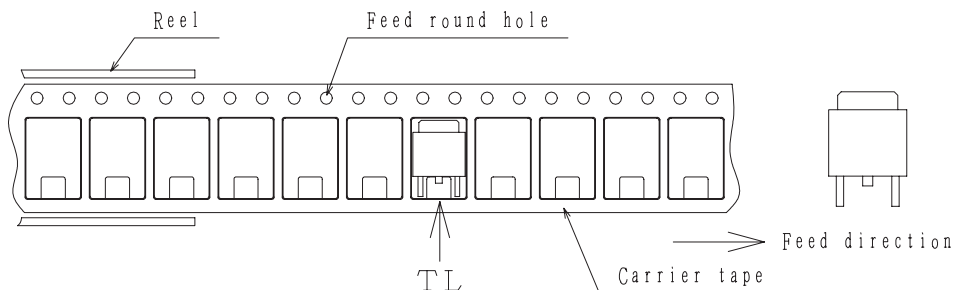
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

Taping configuration

1. Carrier tape size (unit:mm)



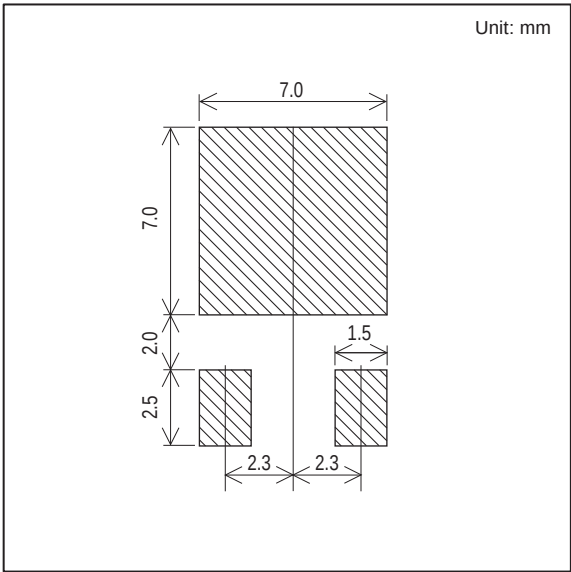
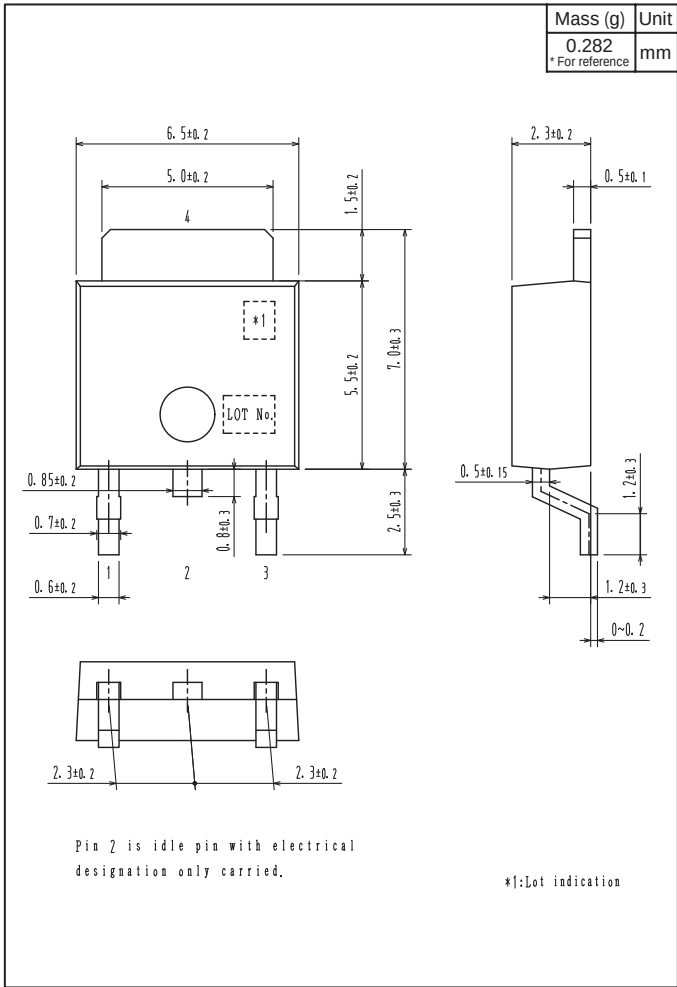
2. Device placement direction



Outline Drawing

2SC4134S-TL-E, 2SC4134T-TL-E

Land Pattern Example



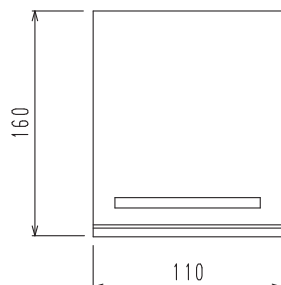
Bag Packing Specification

2SC4134S-E, 2SC4134T-E

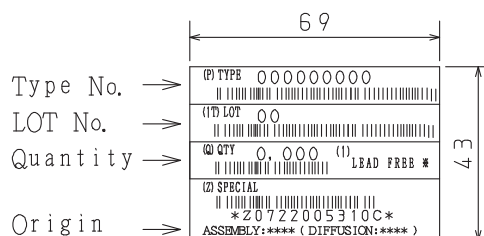
1. Packing Format

Package Name	Maximum Number of devices contained (pcs)			
	Bag	Inner box	Outer box	
TP	500	B-1	A-1	A-2
		10, 000	50, 000	30, 000
		Packing format (Dimensions:mm (external))		
		Inner box	Outer box	
		B-1	A-1	A-2
		445×225×55	470×250×300	470×250×190

2. Bag dimensions



3. Bag label, Inner box label
(unit:mm)



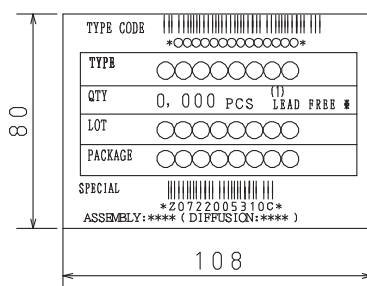
4. Outer box label
(unit:mm)

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

NOTE (1)

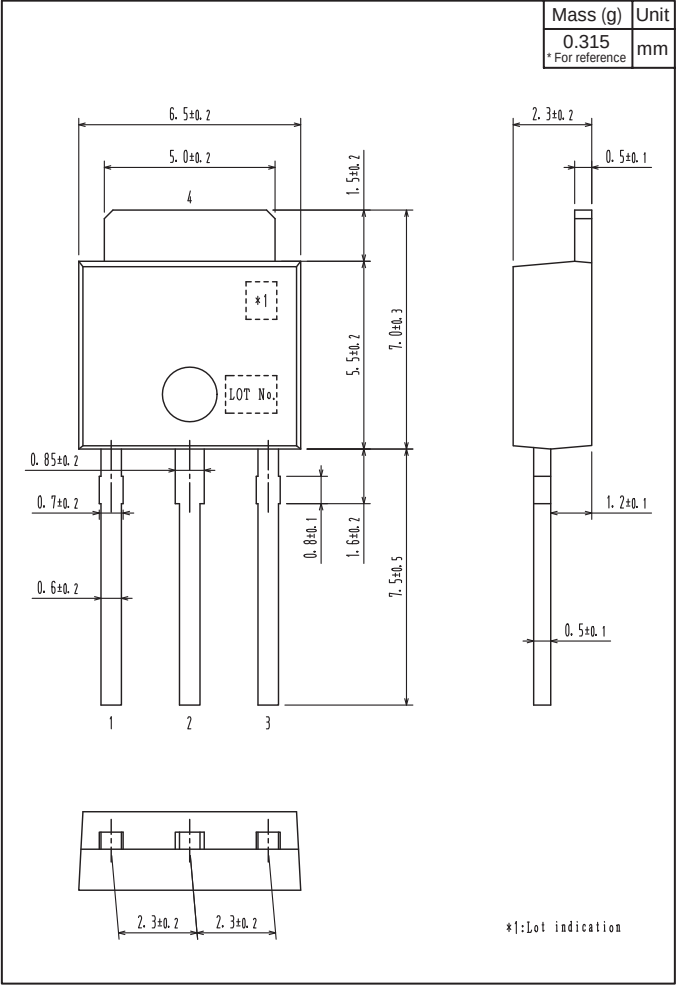
The LEAD FREE % description shows that the surface treatment of the terminal is lead free.

Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3



Outline Drawing

2SC4134S-E, 2SC4134T-E



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