

Continued from preceding page.

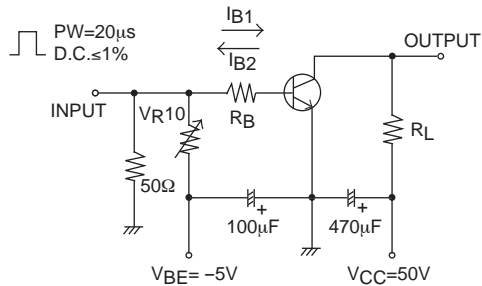
Parameter	Symbol	Conditions	Ratings	Unit
Collector Dissipation	P _C		0.8	W
		T _C =25°C	15	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

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.

Electrical Characteristics at T_a=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	V _{CB} =80V, I _E =0A			1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0A			1	μA
DC Current Gain	h _{FE}	V _{CE} =5V, I _C =100mA	300		600	
Gain-Bandwidth Product	f _T	V _{CE} =10V, I _C =300mA		300		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		13		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =1A, I _B =100mA		110	165	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =1A, I _B =100mA		0.9	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)CES}	I _C =100μA, R _{BE} =0Ω	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	6.5			V
Turn-On Time	t _{on}	See specified Test Circuit.		40		ns
Storage Time	t _{stg}			1100		ns
Fall Time	t _f			40		ns

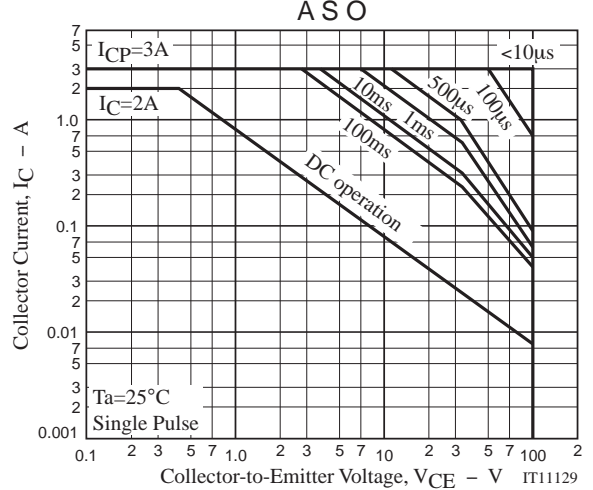
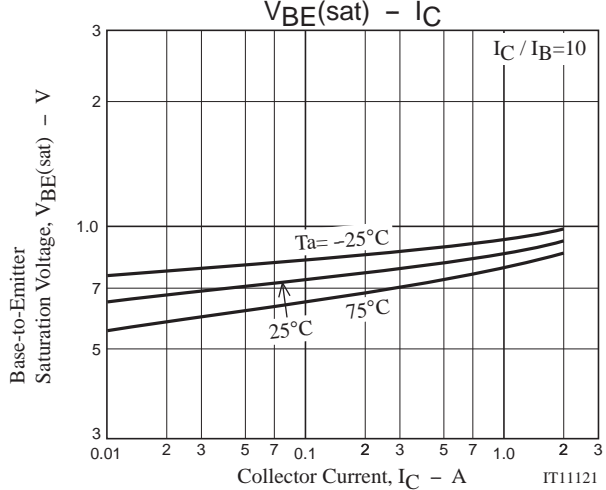
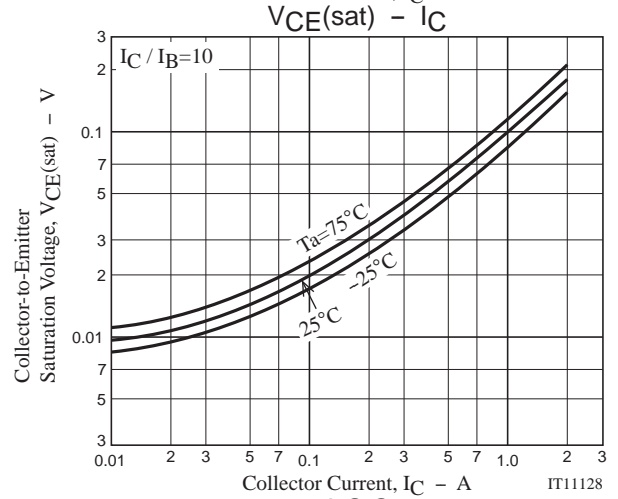
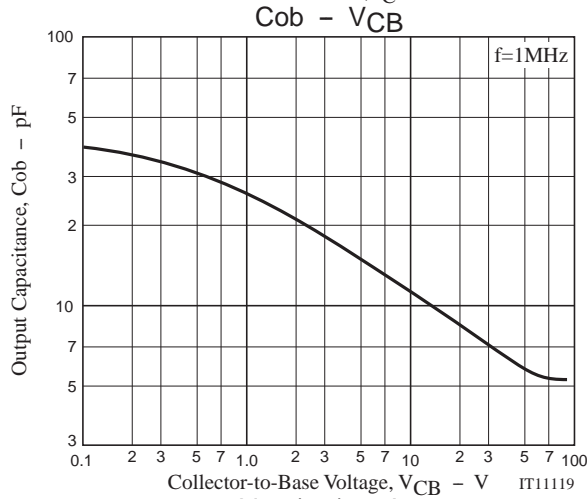
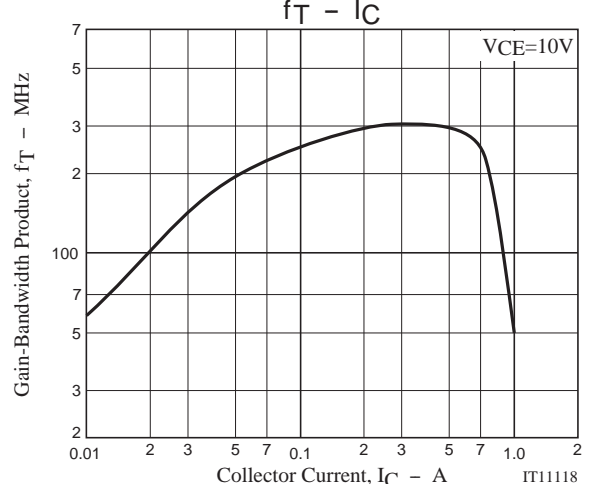
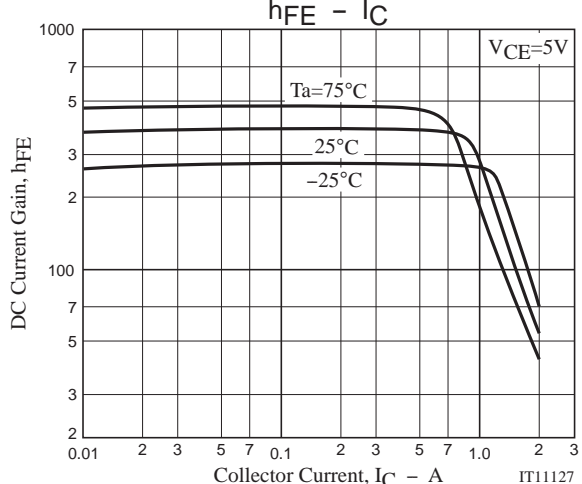
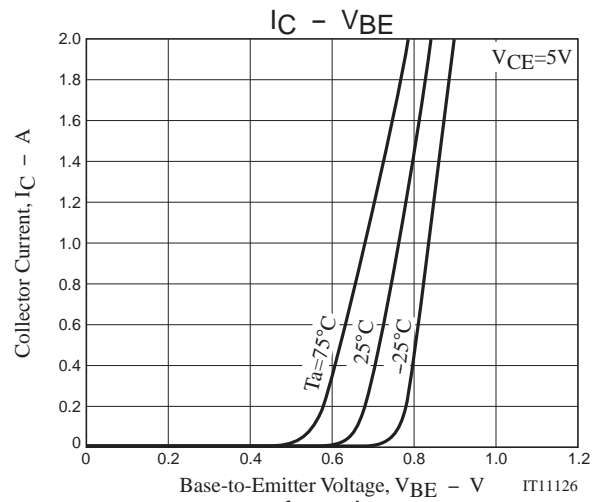
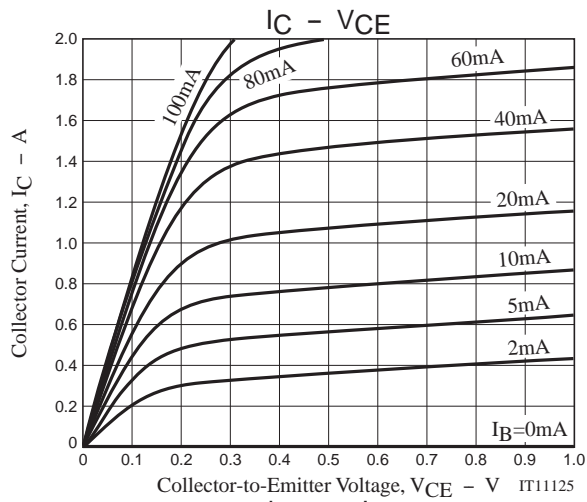
Switching Time Test Circuit

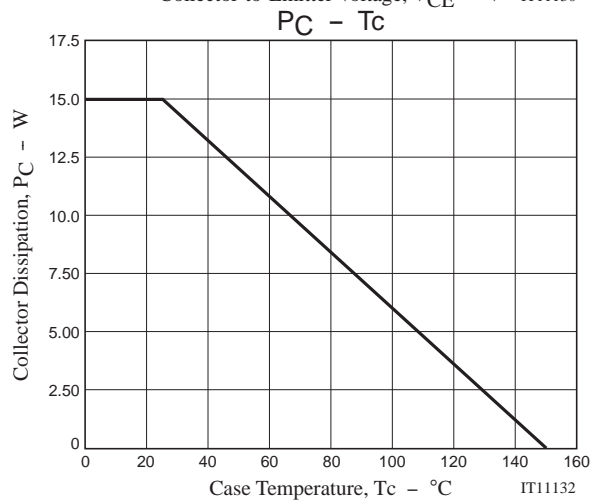
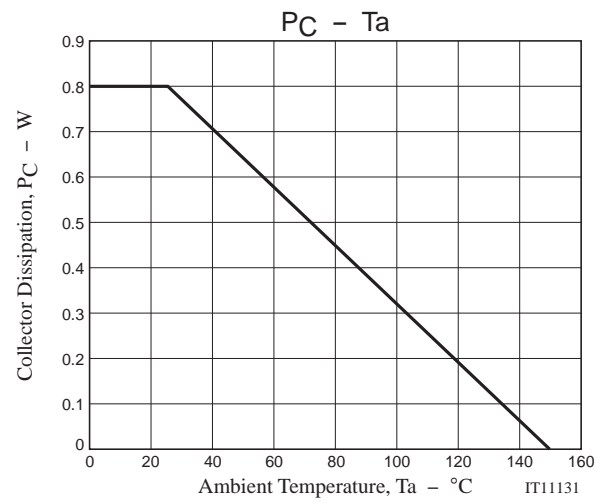
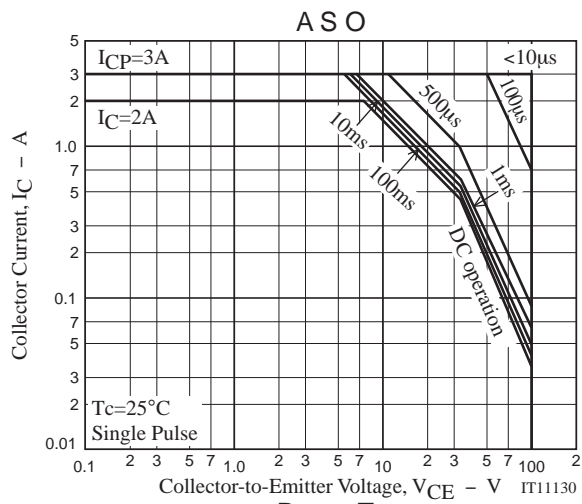


$$I_C = 10I_{B1} = -10I_{B2} = 0.5A$$

Ordering Information

Device	Package	Shipping	memo
2SC6099-E	TP	500pcs./bag	Pb Free
2SC6099-TL-E	TP-FA	700pcs./reel	





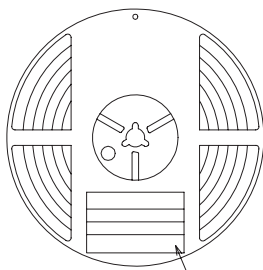
Taping Specification

2SC6099-TL-E

Packing Format

Package Name	Carrier Tape 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:****)	

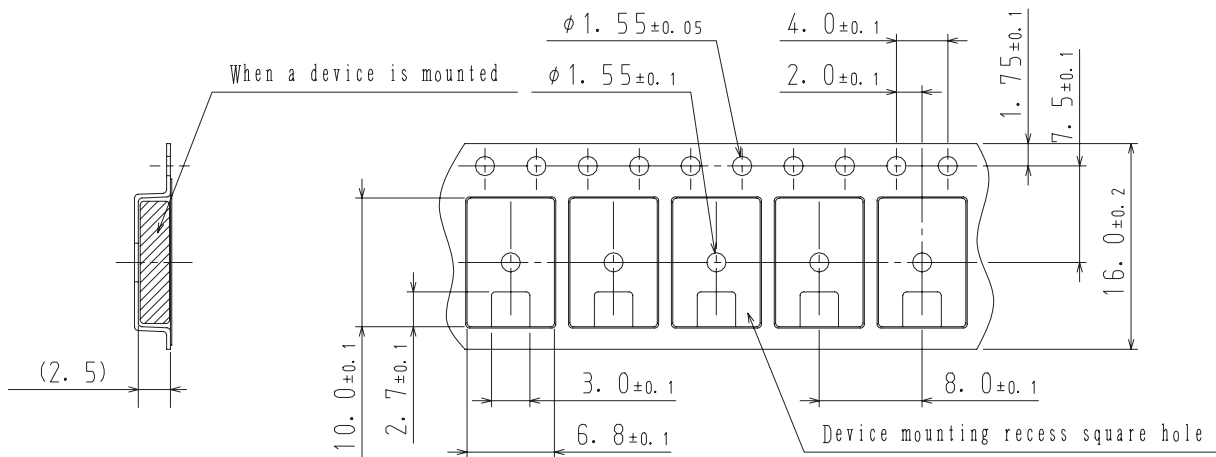
NOTE (1)

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

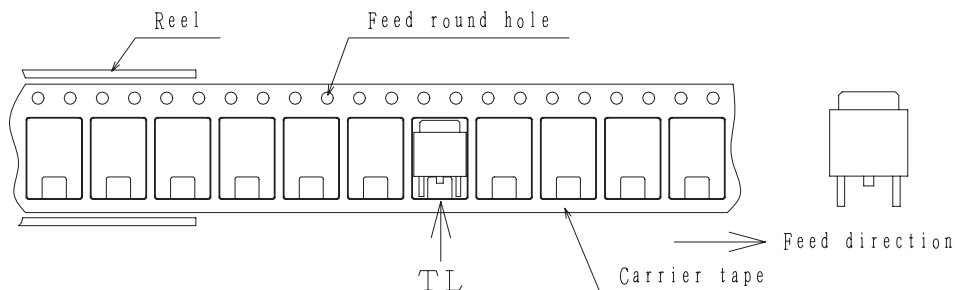
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

Taping configuration

1. Carrier tape size (unit:mm)

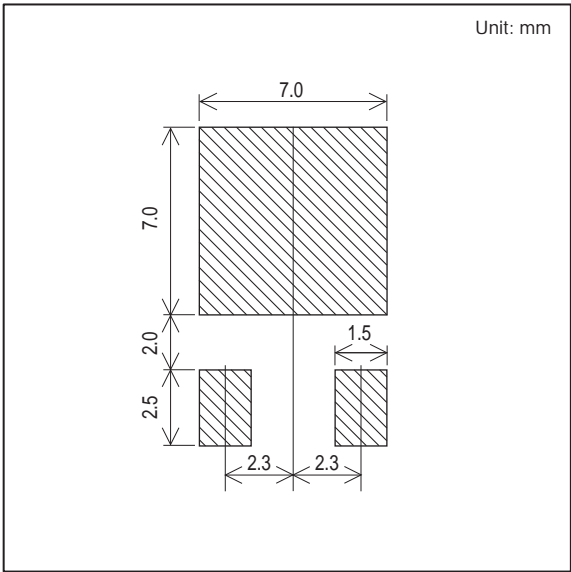
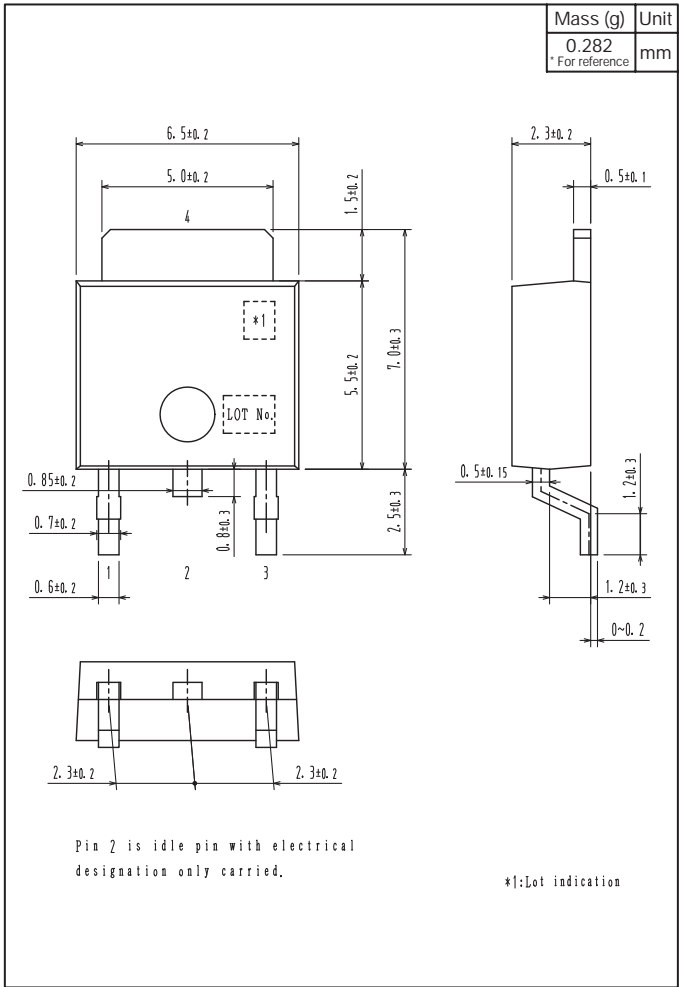


2. Device placement direction



Outline Drawing
2SC6099-TL-E

Land Pattern Example

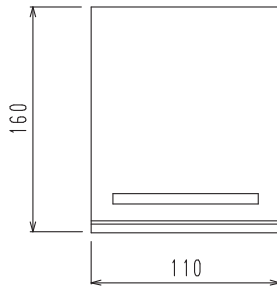
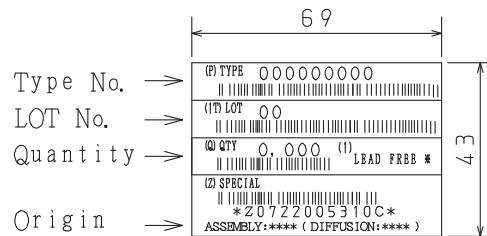


Bag Packing Specification

2SC6099-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

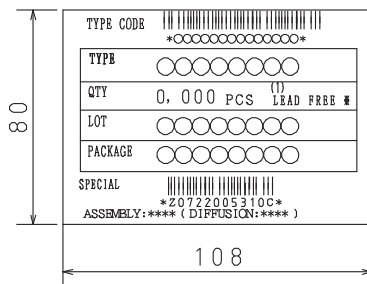
2. Bag dimensions
(unit:mm)3. Bag label, Inner box label
(unit:mm)4. Outer box label
(unit:mm)

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

NOTE (1)

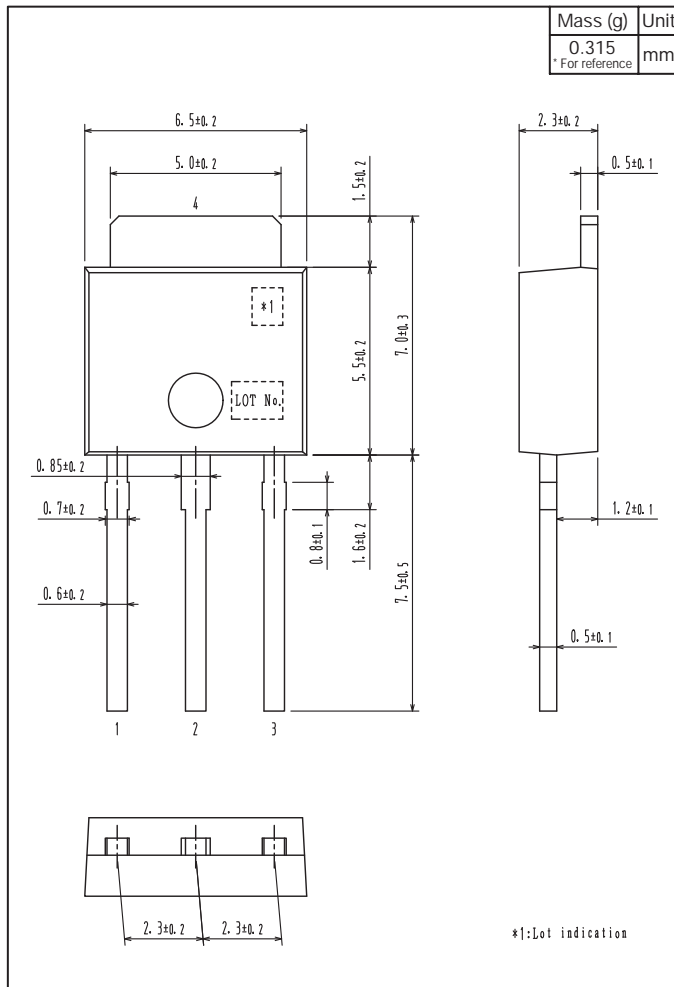
The LEAD FREE * description shows that the
surface treatment of the terminal is lead free.

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



Outline Drawing

2SC6099-E



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