



# SANYO Semiconductors

## DATA SHEET

An ON Semiconductor Company

# RD0504T

Diffused Junction Silicon Diode  
Low VF • High-Speed Switching Diode

### Features

- $V_{RRM}=400V$
- $t_{rr}=17\text{ns}(\text{typ.})(I_F=0.5\text{A}, I_R=1\text{A})$
- $V_F \text{ max}=1.5\text{V}$
- Halogen free compliance

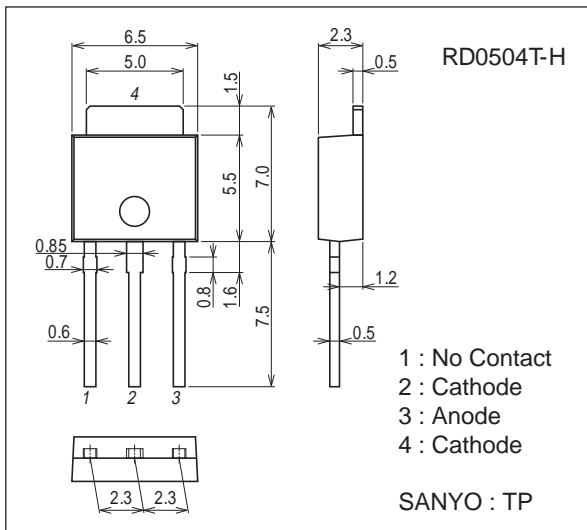
### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		400	V
Average Output Current	$I_O$		5	A
Surge Forward Current	$I_{FSM}$	Sine wave 10ms, 1 cycle	40	A
Junction Temperature	$T_j$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

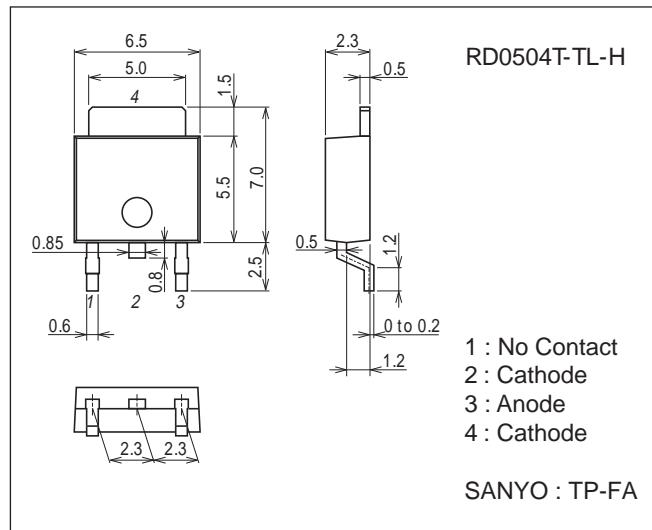
#### Package Dimensions unit : mm (typ)

7518-002



#### Package Dimensions unit : mm (typ)

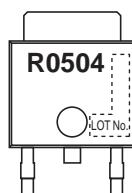
7003-001



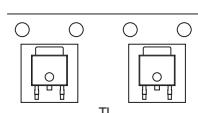
### Product & Package Information

- Package : TP
- JEITA, JEDEC : SC-64, TO-251
- Minimum Packing Quantity : 500 pcs./bag
- Package : TP-FA
- JEITA, JEDEC : SC-63, TO-252
- Minimum Packing Quantity : 700 pcs./reel

### Marking (TP, TP-FA)



### Packing Type (TP-FA) : TL



### Electrical Connection



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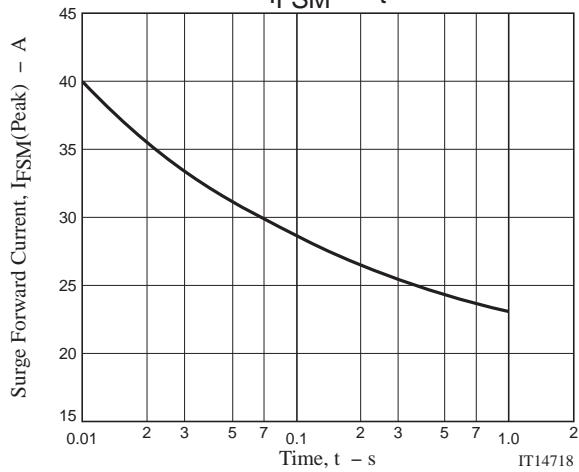
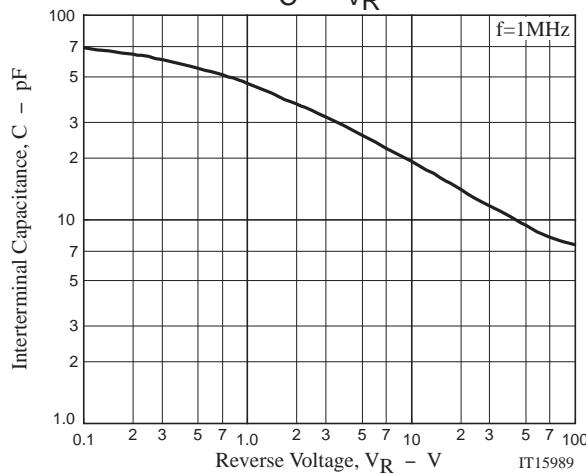
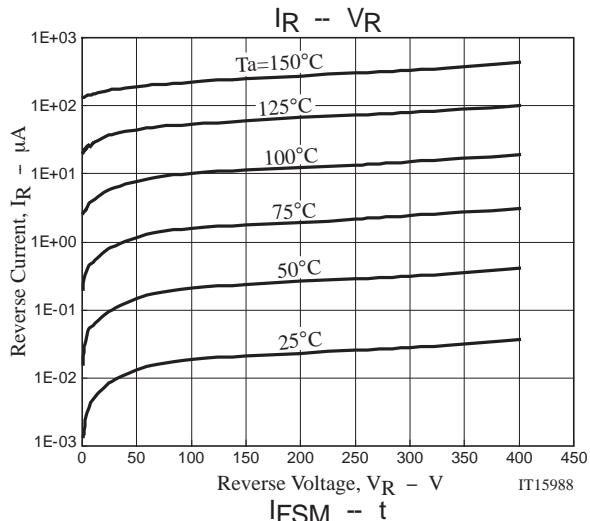
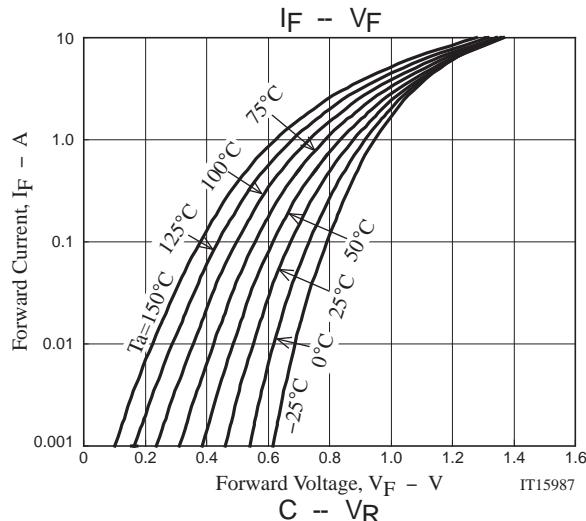
<http://semicon.sanyo.com/en/network>

**Electrical Characteristics** at  $T_a=25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=1\text{mA}$	400			V
Forward Voltage	$V_F$	$I_F=5\text{A}$		1.2	1.5	V
Reverse Current	$I_R$	$V_R=400\text{V}$			20	$\mu\text{A}$
Reverse Recovery Time	$t_{rr1}$	$I_F=5\text{A}, di/dt=100\text{A}/\mu\text{s}$		40	50	ns
	$t_{rr2}$	$I_F=0.5\text{A}, I_R=1\text{A}$		17		ns
Thermal Resistance	$R_{th(j-c)}$	Junction - Case		6		$^\circ\text{C} / \text{W}$

**Ordering Information**

Device	Package	Shipping	memo
RD0504T-H	TP	500pcs./bag	
RD0504T-TL-H	TP-FA	700pcs./reel	Pb Free and halogen Free

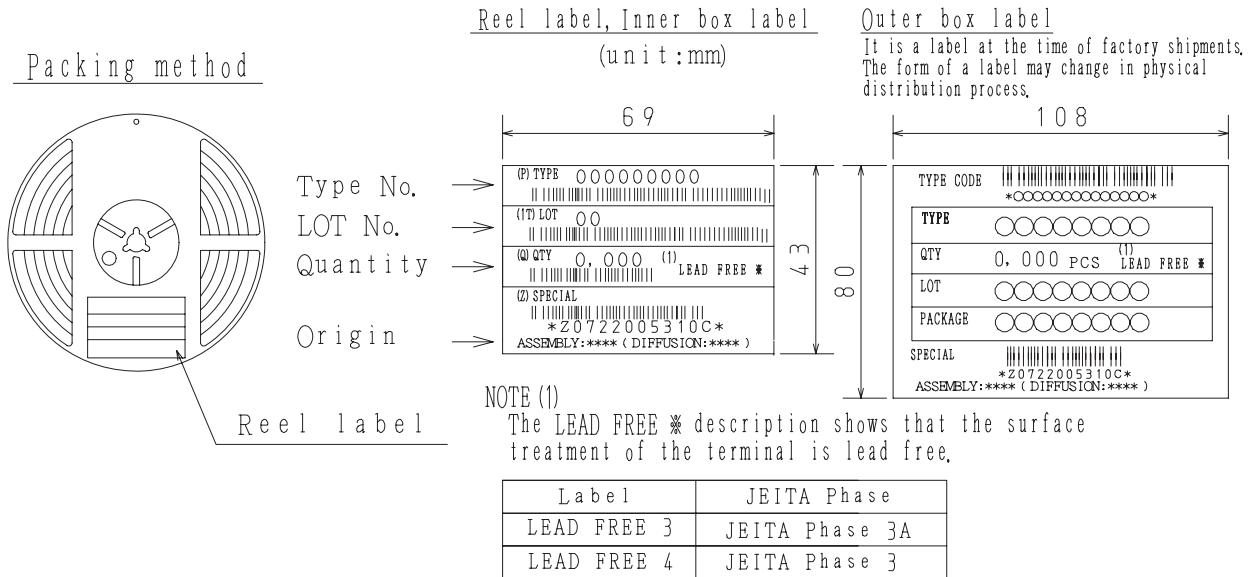


## Taping Specification

RD0504T-TL-H

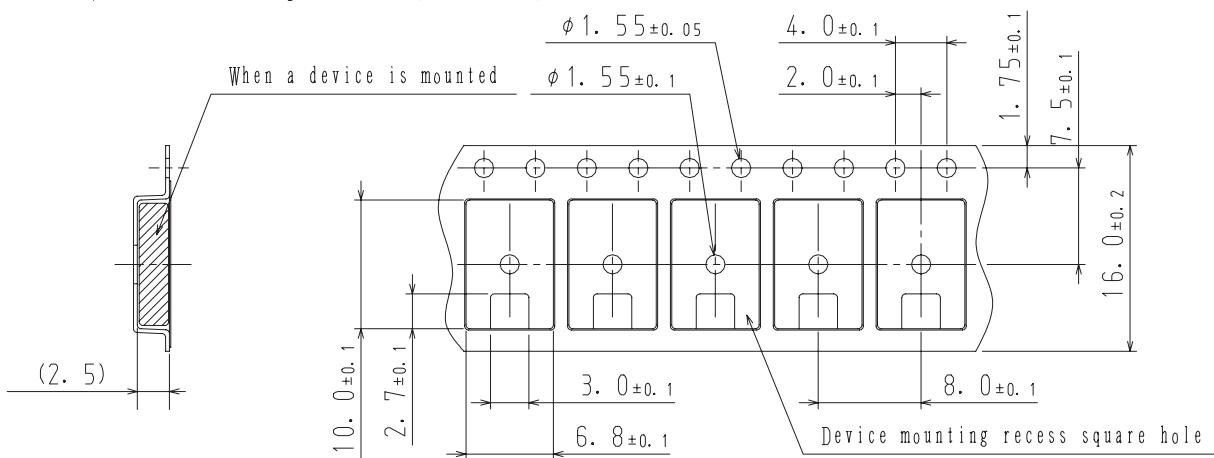
## Packing Format

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

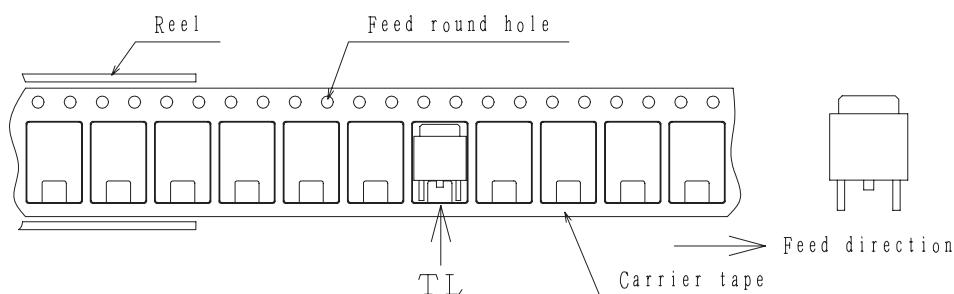


## Taping configuration

## 1. Carrier tape size (unit:mm)



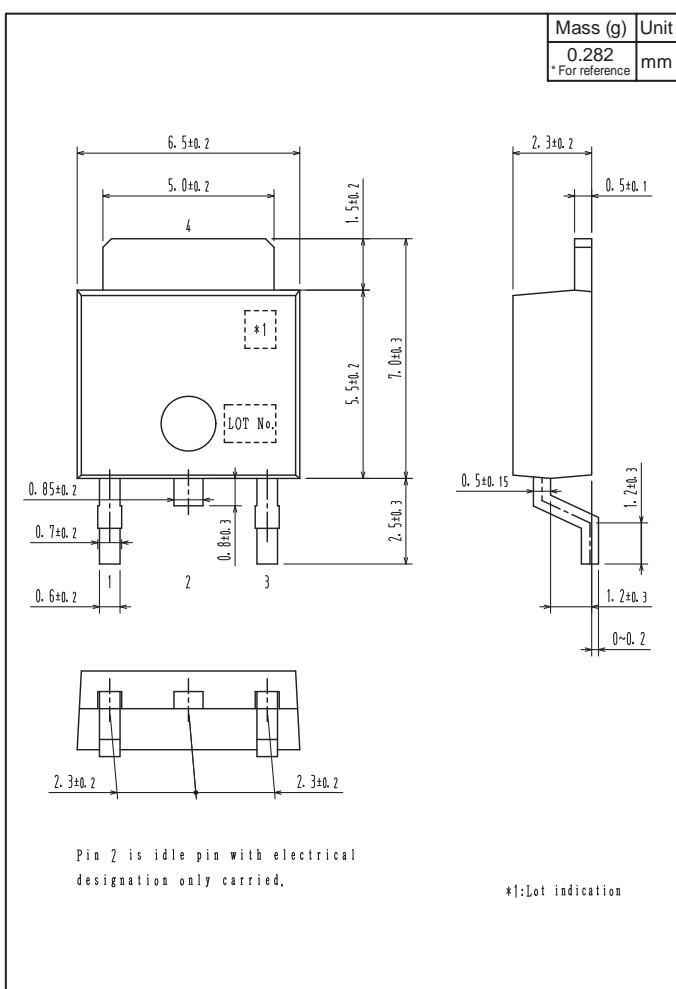
## 2. Device placement direction



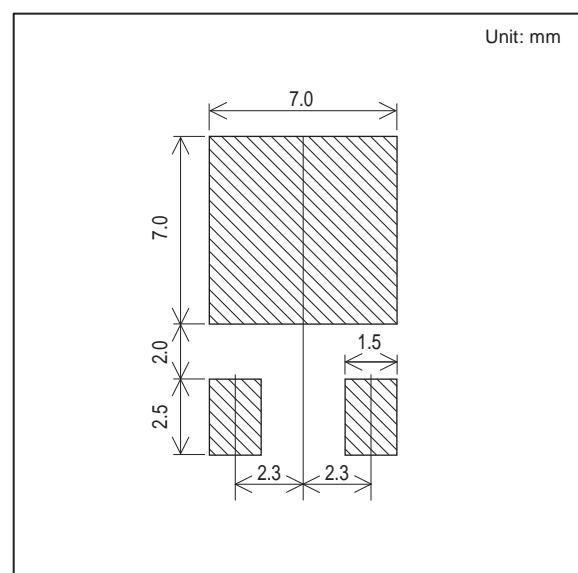
Those with one electrode terminal on the feed hole side.....TL

## Outline Drawing

RD0504-TL-H



## Land Pattern Example



Pin 2 is idle pin with electrical designation only carried.

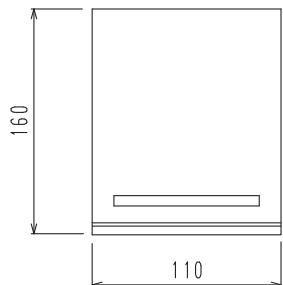
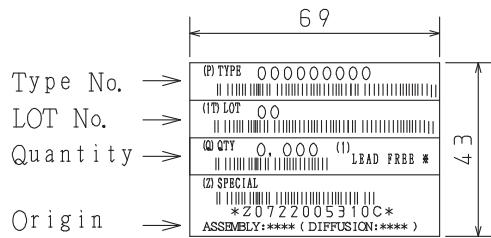
\*1:Lot indication

**Bag Packing Specification**

RD0504T-H

1. Packing Format

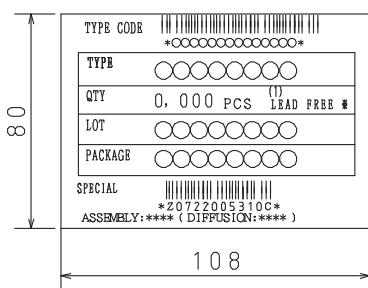
Package Name	Maximum Number of devices contained (pcs)		
	Bag	Inner box	Outer box
TP 500	B-1	A-1	A-2
	10,000	50,000	30,000
Packing format (Dimensions:mm (external))			
Inner box	Outer box		
	B-1	A-1	A-2
	445×225×55	470×250×300	470×250×190

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.

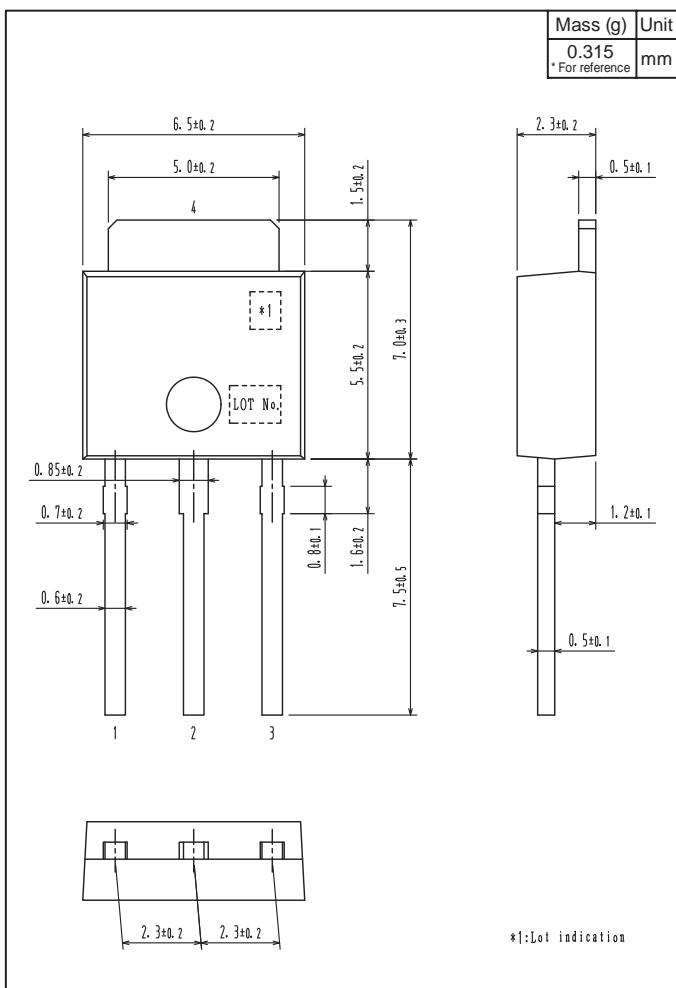
NOTE (1)  
 The LEAD FREE \* description shows that the surface treatment of the terminal is lead free.

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



## Outline Drawing

RD0504T-H



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