



# SB80W06T

## Schottky Barrier Diode 60V, 8A, Low IR, Monolithic Dual TP Common Cathode

ON Semiconductor®

http://onsemi.com

### Applications

- High frequency rectification (switching regulators, converters, choppers)

### Features

- Low forward voltage ( $V_F$  max=0.6V)
- Low switching noise
- Halogen free compliance
- Fast reverse recovery time
- High reliability due to highly reliable planar structure

### Specifications

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

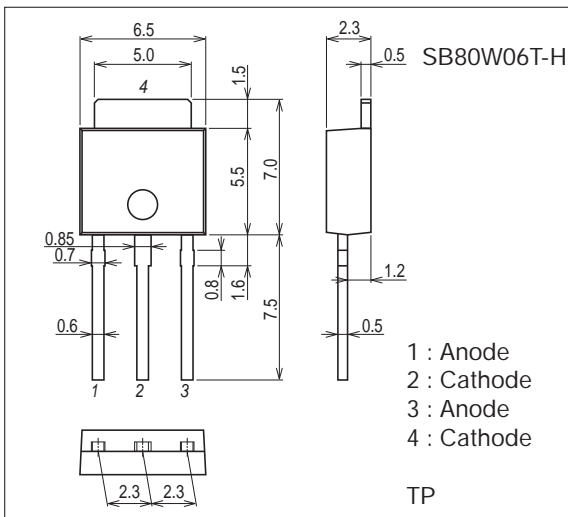
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		60	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		66	V

Continued on next page.

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.

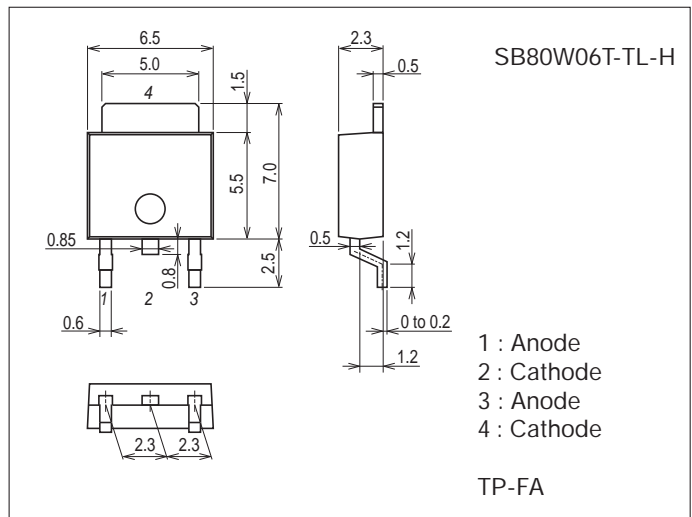
### Package Dimensions

unit : mm (typ)  
7518-001



### Package Dimensions

unit : mm (typ)  
7003-002

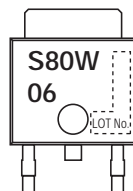


### Product & Package Information

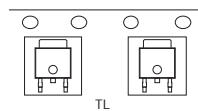
- Package : TP
- JEITA, JEDEC : SC-64, TO-251, SOT-553, DPAK
- Minimum Packing Quantity : 500 pcs./bag

- Package : TP-FA
- JEITA, JEDEC : SC-63, TO-252, SOT-428, DPAK
- Minimum Packing Quantity : 700 pcs./reel

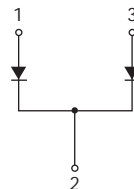
### Marking (TP, TP-FA)



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



### Electrical Connection



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Continued from preceding page.

Parameter	Symbol	Conditions	Ratings	Unit
Average Output Current	$I_O^*2$	50Hz resistive load, sine wave $T_c=130^\circ\text{C}$	4	A
	$I_O^*1$	50Hz resistive load, sine wave $T_c=83^\circ\text{C}$	8	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	40	A
Junction Temperature	$T_j$		-55 to +150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

Note) \*1. Indicates the total value

\*2. Value per element

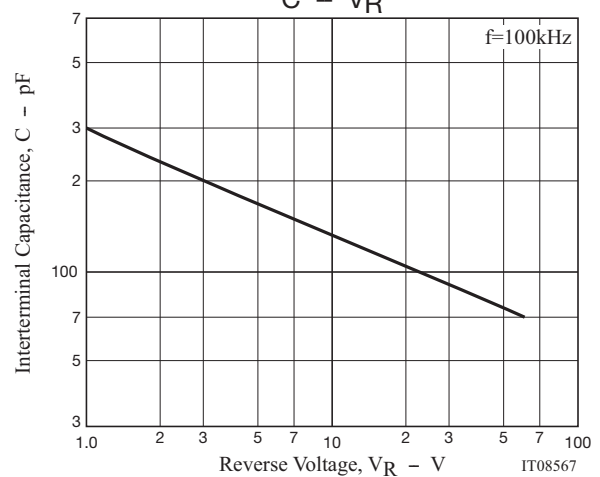
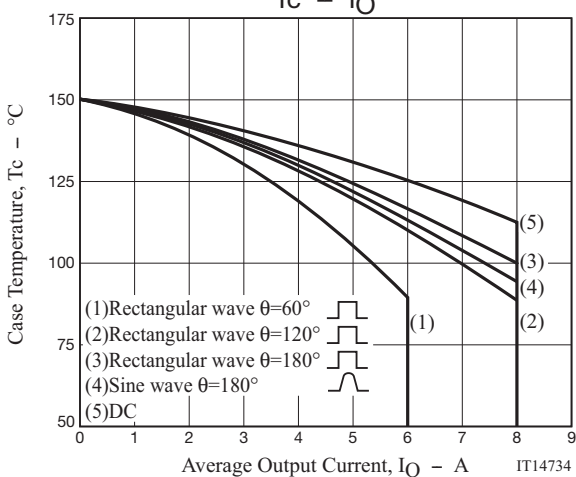
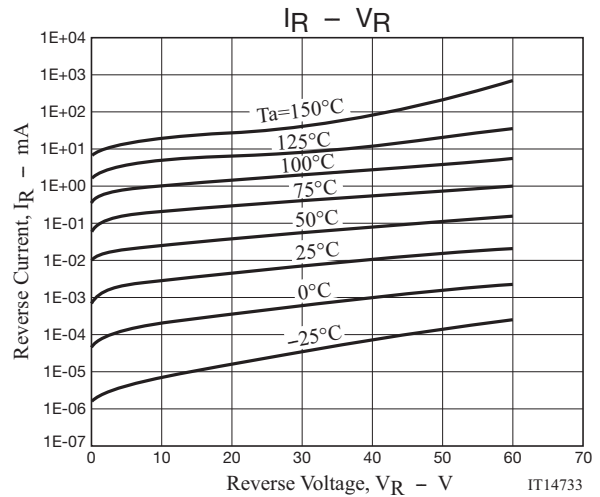
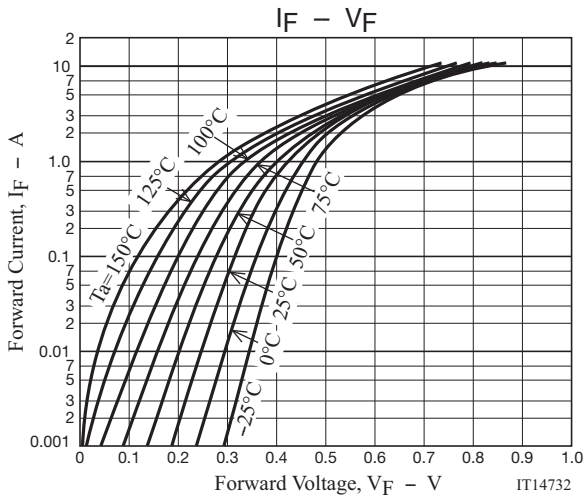
## Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=1\text{mA}$ , $T_j=25^\circ\text{C}$ *2	60			V
Forward Voltage	$V_F$	$I_F=3.0\text{A}$ , $T_j=25^\circ\text{C}$ *2			0.6	V
Reverse Current	$I_R$	$V_R=30\text{V}$ , $T_j=25^\circ\text{C}$ *2			0.1	mA
Interterminal Capacitance	C	$V_R=10\text{V}$ , $T_j=25^\circ\text{C}$ *2		130		pF
Transient Thermal Resistance	$R_{th(j-c)}$	Junction-Case : Smoothed DC		6		$^\circ\text{C} / \text{W}$

Note) \*2. Value per element

## Ordering Information

Device	Package	Shipping	memo
SB80W06T-H	TP	500pcs./bag	Pb Free and Halogen Free
SB80W06T-TL-H	TP-FA	700pcs./reel	



Taping Specification

SB80W06T-TL-H

Packing Format

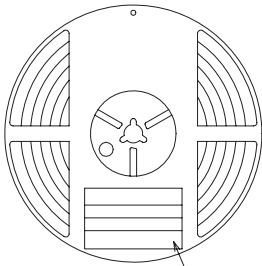
Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
TP-FA	TP	700	2,100	12,600	3 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Reel label, Inner box label  
(unit:mm)

Outer box label

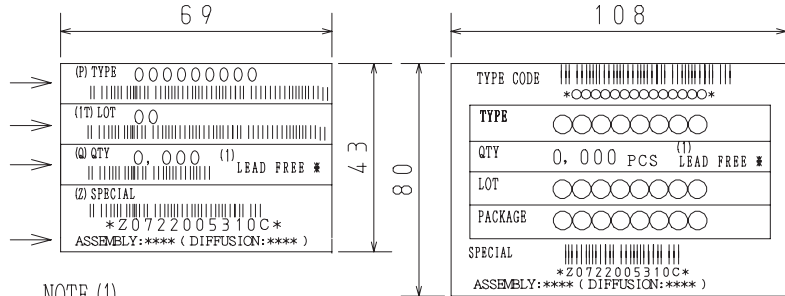
It is a label at the time of factory shipments.  
The form of a label may change in physical distribution process.

Packing method



Type No.  
LOT No.  
Quantity  
Origin

Reel label



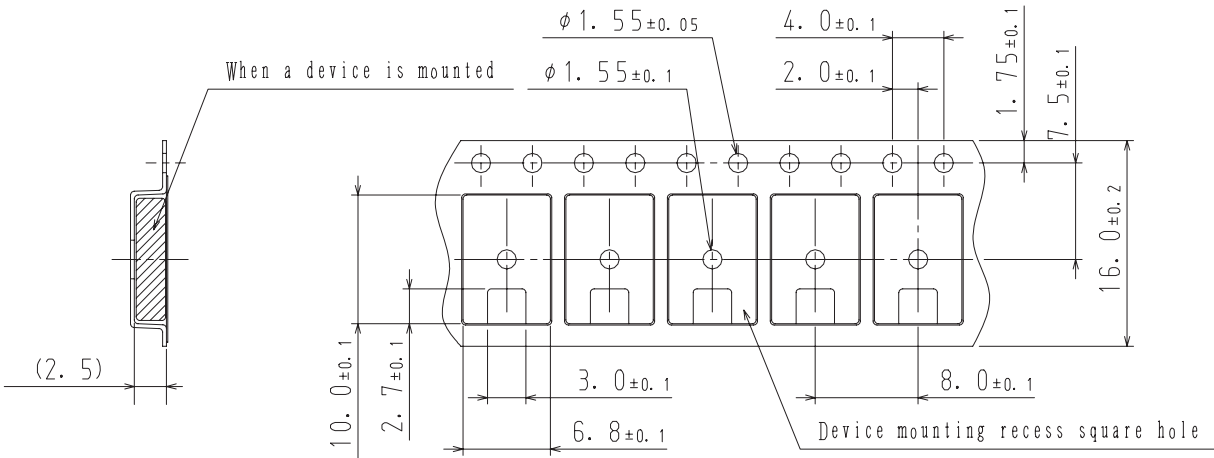
NOTE (1)

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

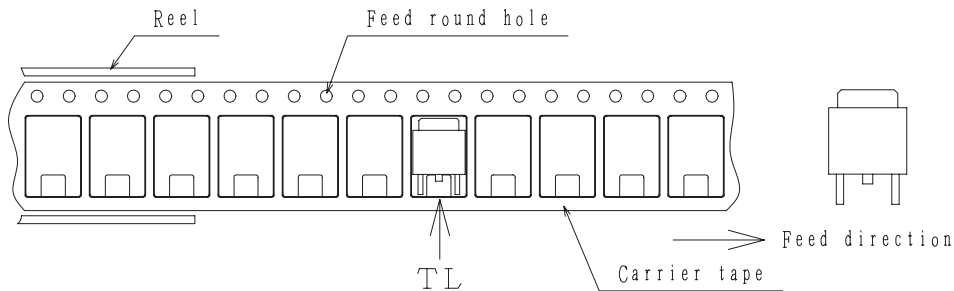
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

Taping configuration

1. Carrier tape size (unit:mm)



2. Device placement direction

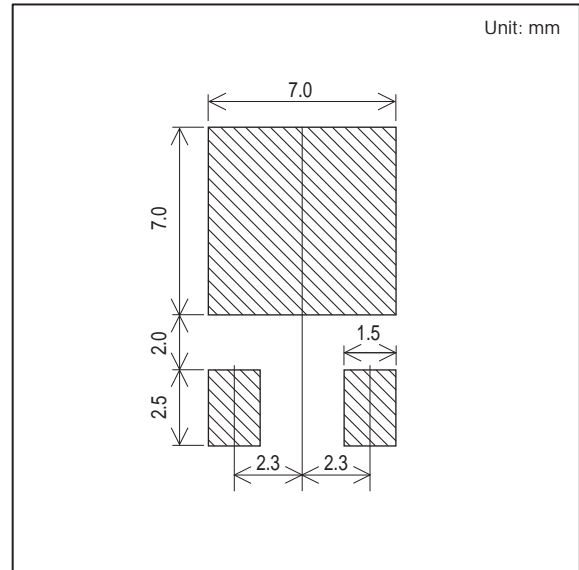
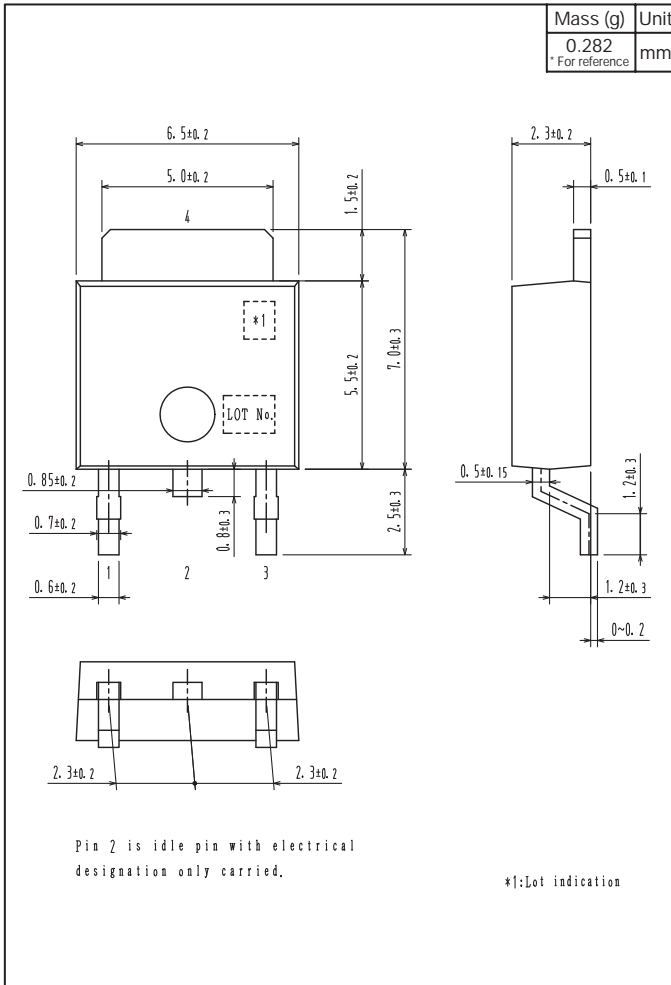


Those with one electrode terminal on the feed hole side.....TL

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## Outline Drawing SB80W06T-TL-H

## Land Pattern Example



# SB80W06T

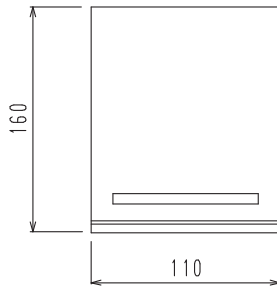
## Bag Packing Specification

SB80W06T-H

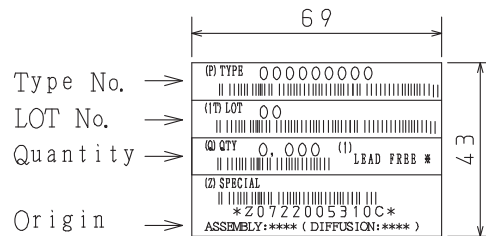
### 1. Packing Format

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)



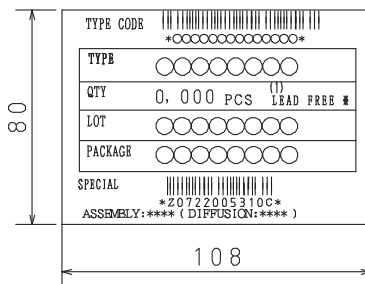
### 4. Outer box label (unit:mm)

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



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## Outline Drawing

SB80W06T-H



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