



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	V_{RRM}		60	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		66	V

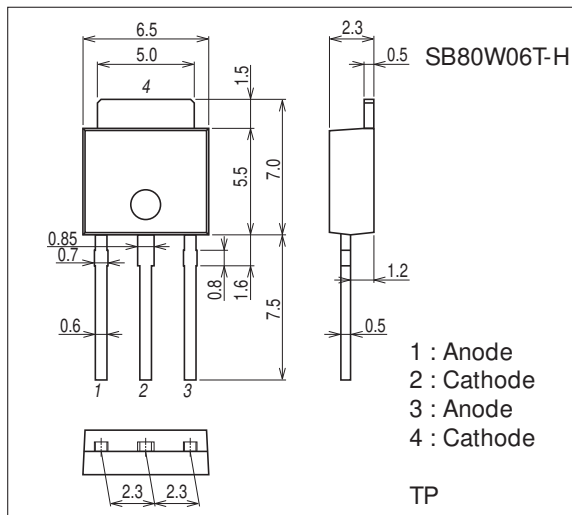
Continued on next page.

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)

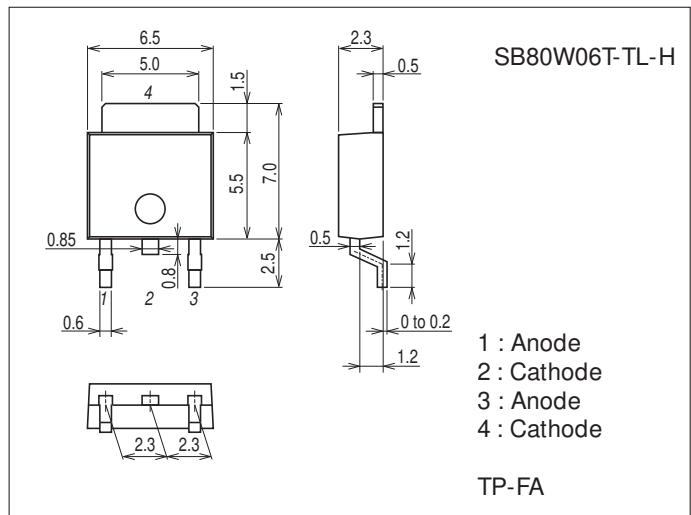
7518-001



Package Dimensions

unit : mm (typ)

7003-002

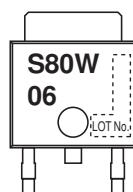


Product & Package Information

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

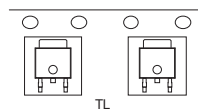
Marking

(TP, TP-FA)

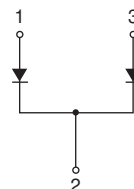


- Package : TP-FA
- JEITA, JEDEC : SC-63, TO-252, SOT-428, DPAK
- Minimum Packing Quantity : 700 pcs./reel

Packing Type (TP-FA) : TL



Electrical Connection



SB80W06T

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

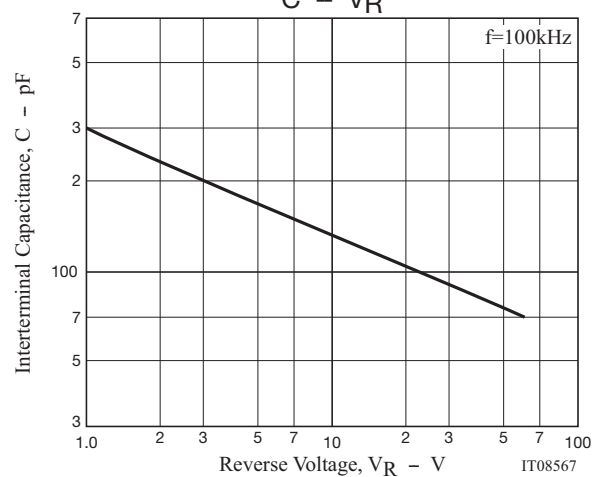
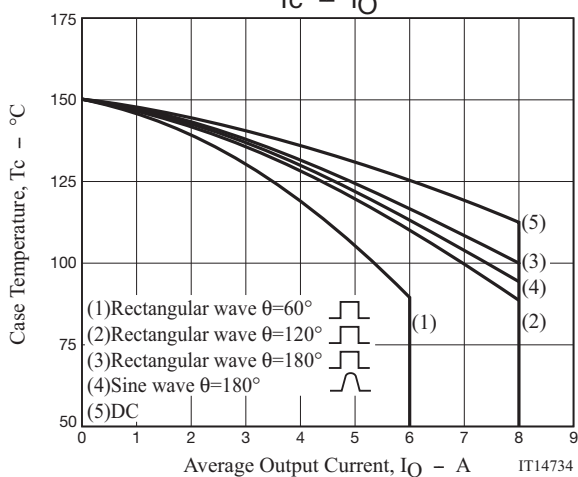
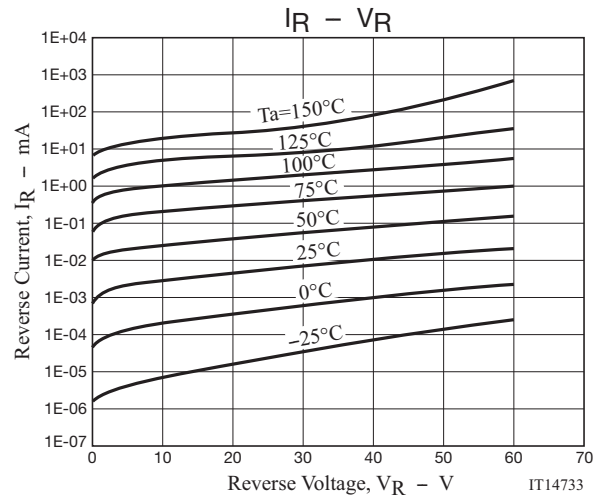
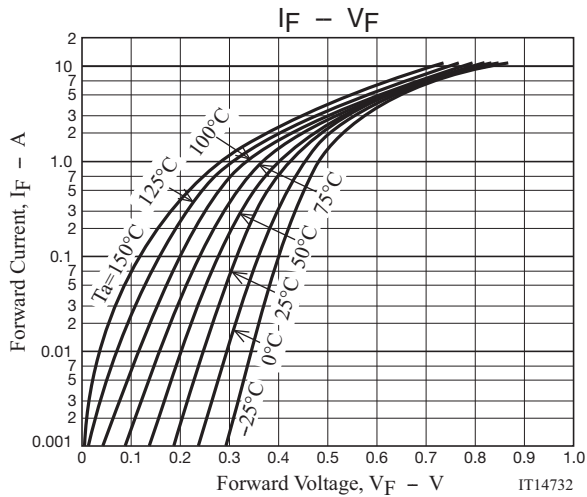
Electrical Characteristics at $T_a=25^{\circ}\text{C}$

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	



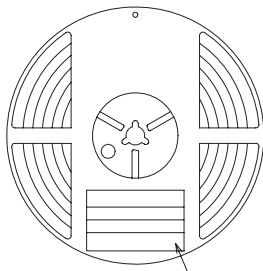
Taping Specification

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

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:****)	

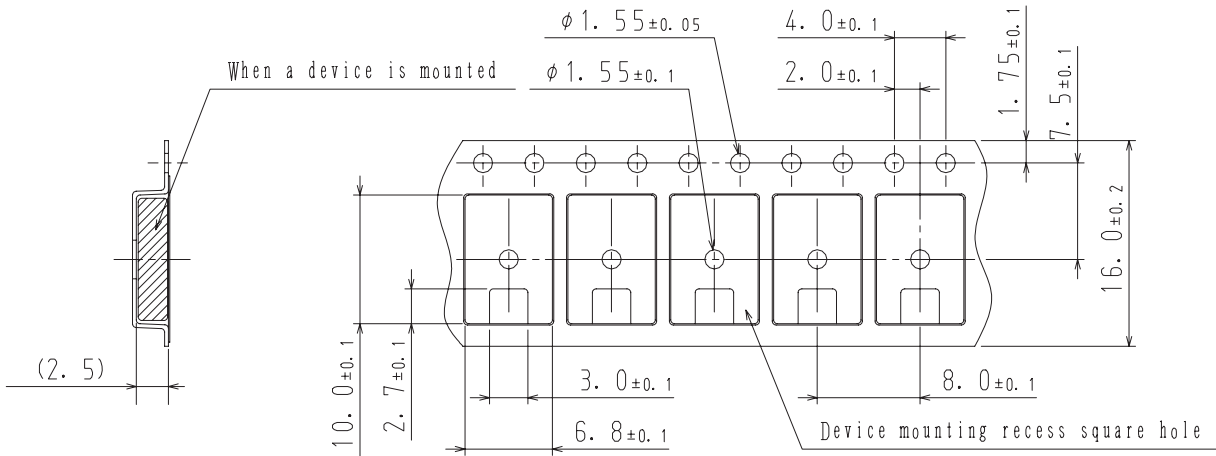
NOTE (1)

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

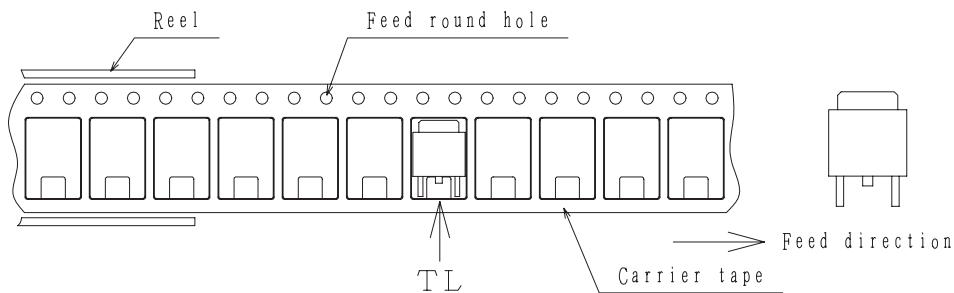
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

Taping configuration

1. Carrier tape size (unit:mm)



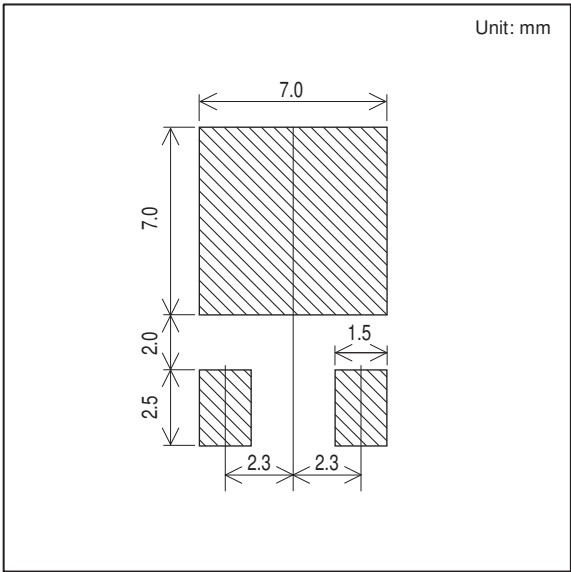
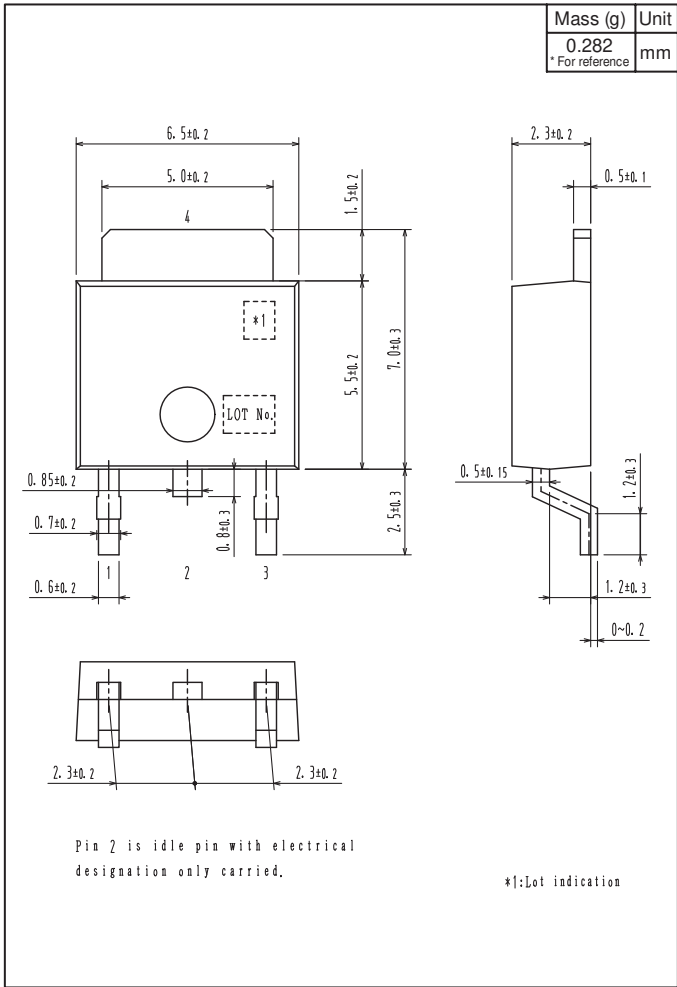
2. Device placement direction



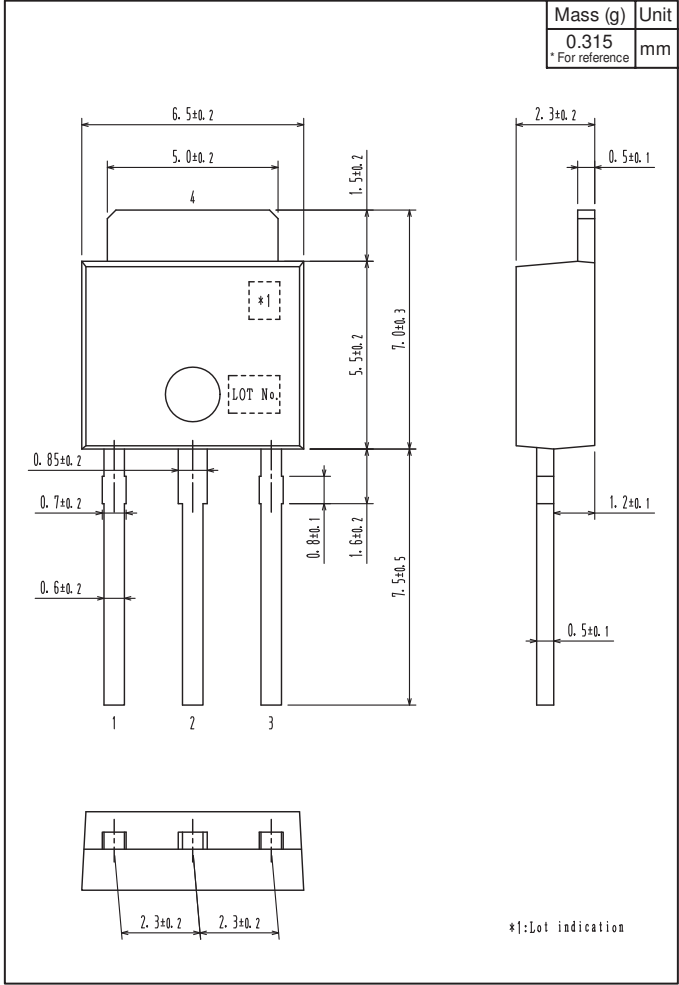
Outline Drawing

SB80W06T-TL-H

Land Pattern Example



Outline Drawing
SB80W06T-H



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