



SB80W10T

Schottky Barrier Diode

100V, 8A, Low IR, Monolithic Dual TP Common Cathode

ON Semiconductor®

<http://onsemi.com>

Features

- $V_F \text{ max} = 0.8\text{V}$
- $I_R \text{ max} = 0.1\text{mA}$
- 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}		100	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		105	V
Average Output Current	I_O^{*1}	50Hz resistive load, sine wave $T_c = 62^\circ\text{C}$	8	A
	I_O^{*2}	50Hz resistive load, sine wave $T_c = 121^\circ\text{C}$	4	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

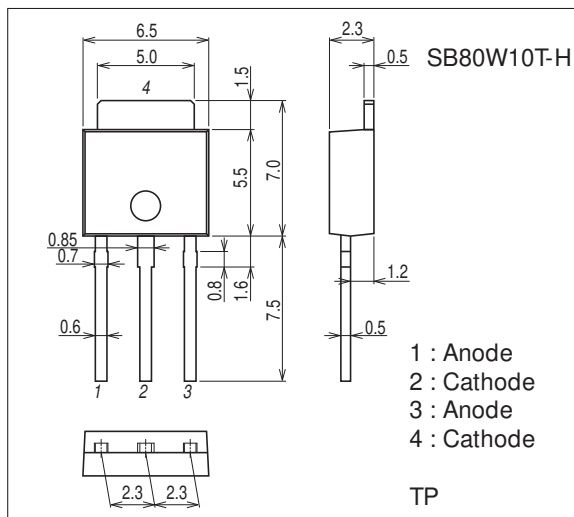
*2. Value per element

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)

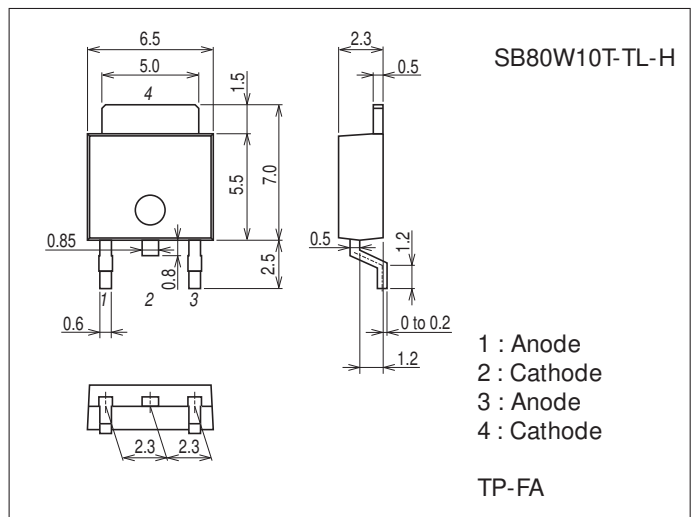
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Package Dimensions

unit : mm (typ)

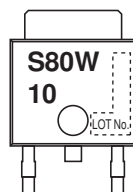
7003-002



Product & Package Information

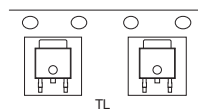
- Package : TP
- JEITA, JEDEC : SC-64, TO-251
- Minimum Packing Quantity : 500 pcs./bag

Marking (TP, TP-FA)

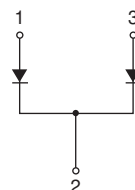


- Package : TP-FA
- JEITA, JEDEC : SC-63, TO-252
- Minimum Packing Quantity : 700 pcs./reel

Packing Type (TP-FA) : TL



Electrical Connection



SB80W10T

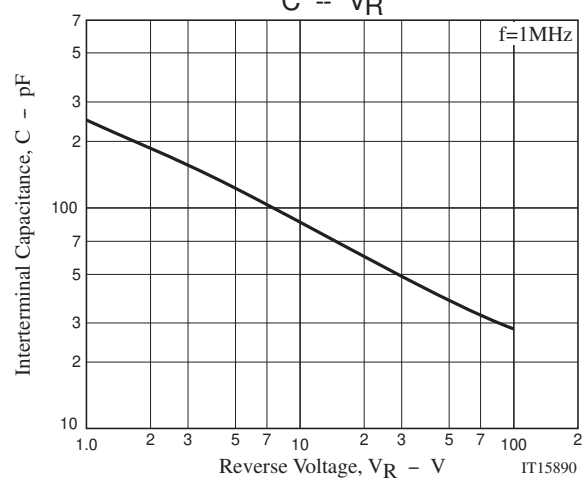
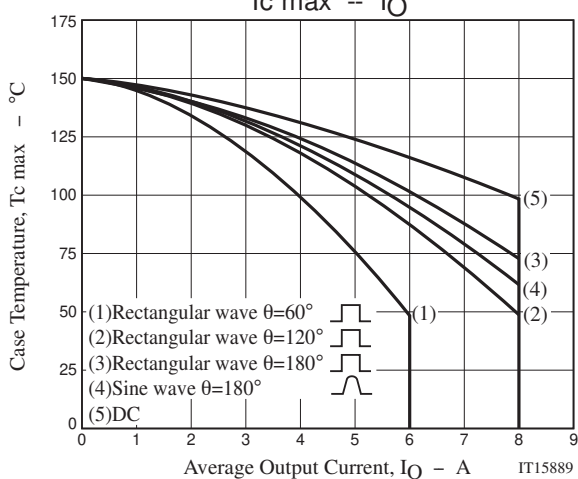
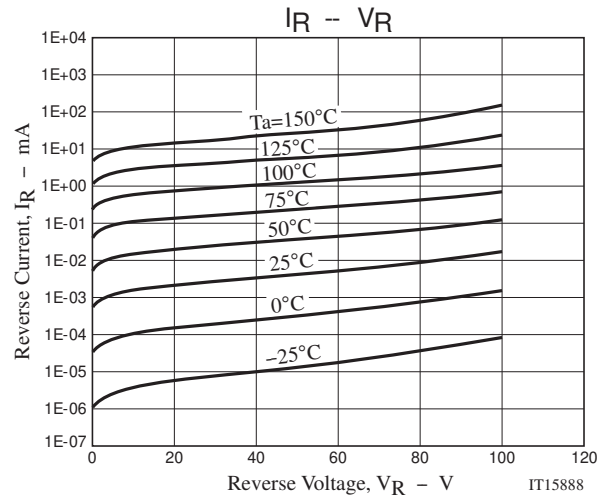
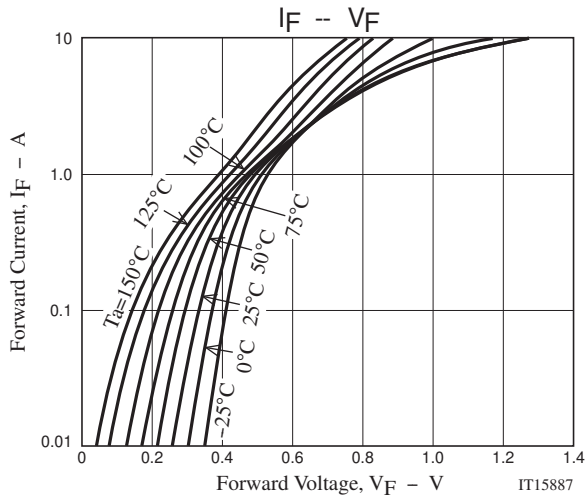
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1\text{mA}$, $T_j=25^\circ\text{C}$ *2	100			V
Forward Voltage	V_F	$I_F=3.0\text{A}$, $T_j=25^\circ\text{C}$ *2			0.8	V
Reverse Current	I_R	$V_R=50\text{V}$, $T_j=25^\circ\text{C}$ *2			0.1	mA
Interterminal Capacitance	C	$V_R=10\text{V}$, $T_j=25^\circ\text{C}$ *2		90		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
SB80W10T-H	TP	500pcs./bag	Pb Free and Halogen Free
SB80W10T-TL-H	TP-FA	700pcs./reel	



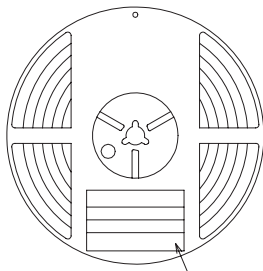
Taping Specification

SB80W10T-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	00000000
(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:****)

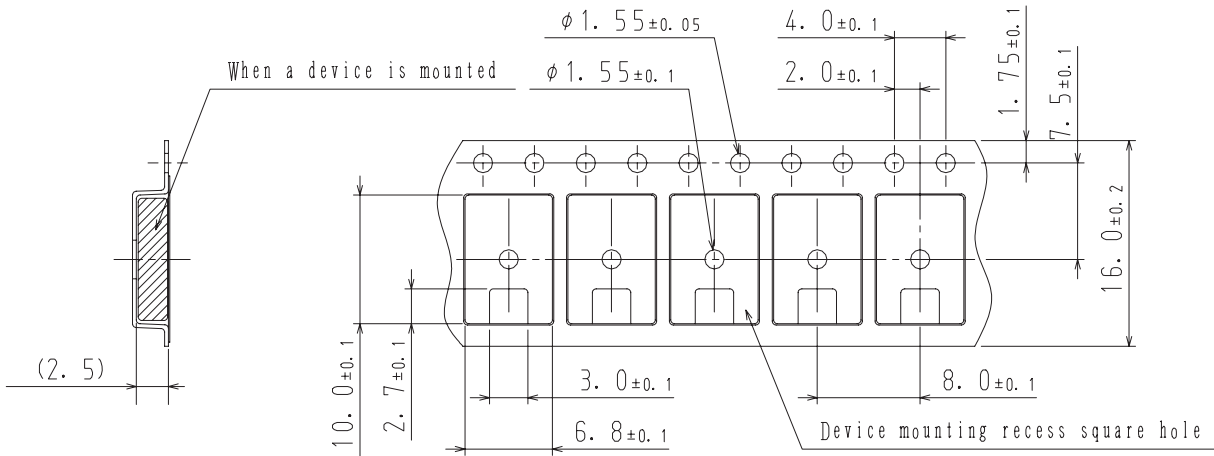
NOTE (1)

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

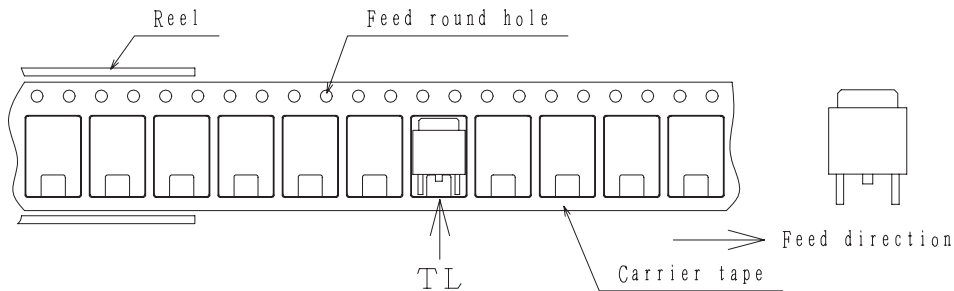
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

Taping configuration

1. Carrier tape size (unit:mm)



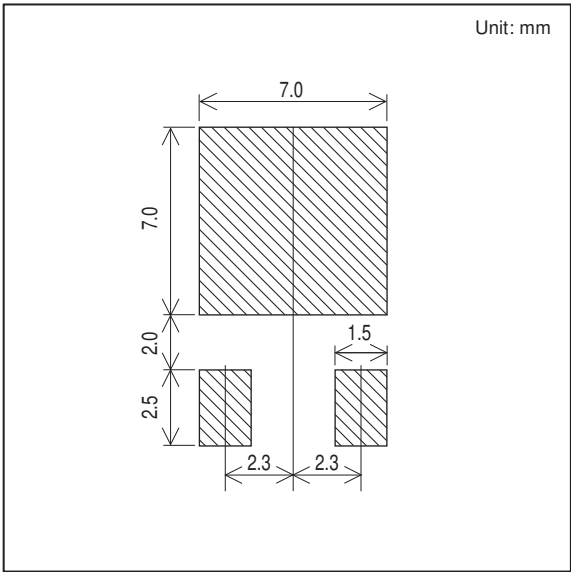
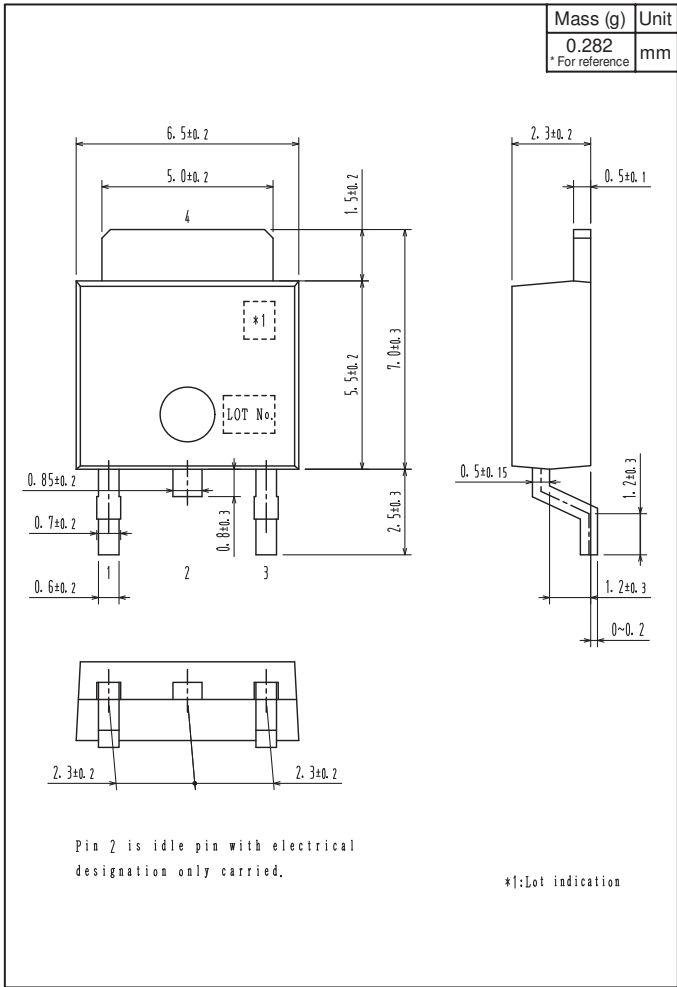
2. Device placement direction



Outline Drawing

SB80W10T-TL-H

Land Pattern Example



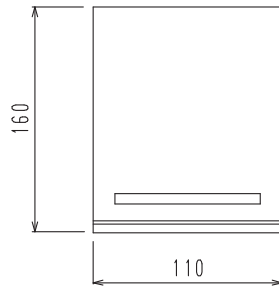
Bag Packing Specification

SB80W10T-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)

Type No. →	(P) TYPE 0000000000	43
LOT No. →	(1) LOT 00	
Quantity →	(Q) QTY 0,000 (1) LEAD FREE *	
Origin →	(2) SPECIAL *20722005310C* ASSEMBLY:**** (DIFFUSION:****)	

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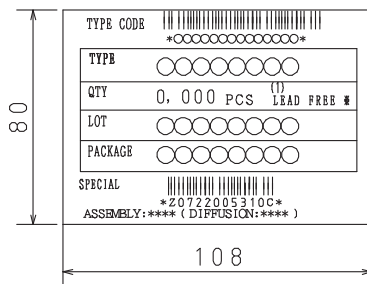
4. Outer box label (unit:mm)

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

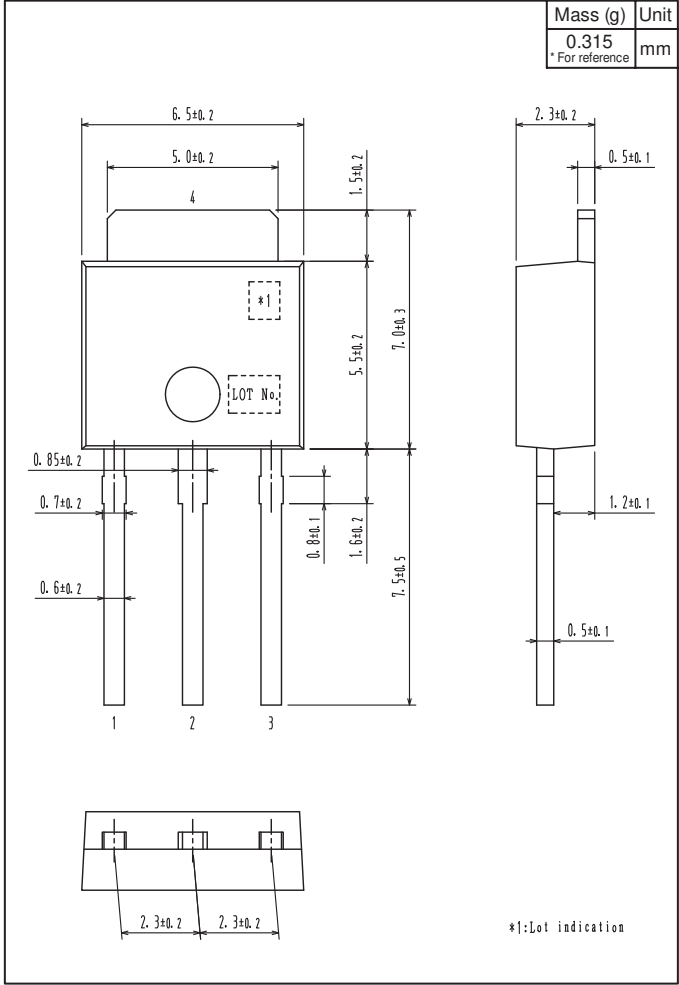
NOTE (1)

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
SB80W10T-H



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