



SB07-03P

Schottky Barrier Diode 30V, 0.7A, Low IR, Single PCP

ON Semiconductor®

http://onsemi.com

Applications

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

Features

- Low forward voltage (VF max=0.55V)
- Low switching noise
- Low leakage current and high reliability due to highly reliable planar structure
- Fast reverse recovery time (trr max=10ns)

Specifications

Absolute Maximum Ratings at Ta=25°C

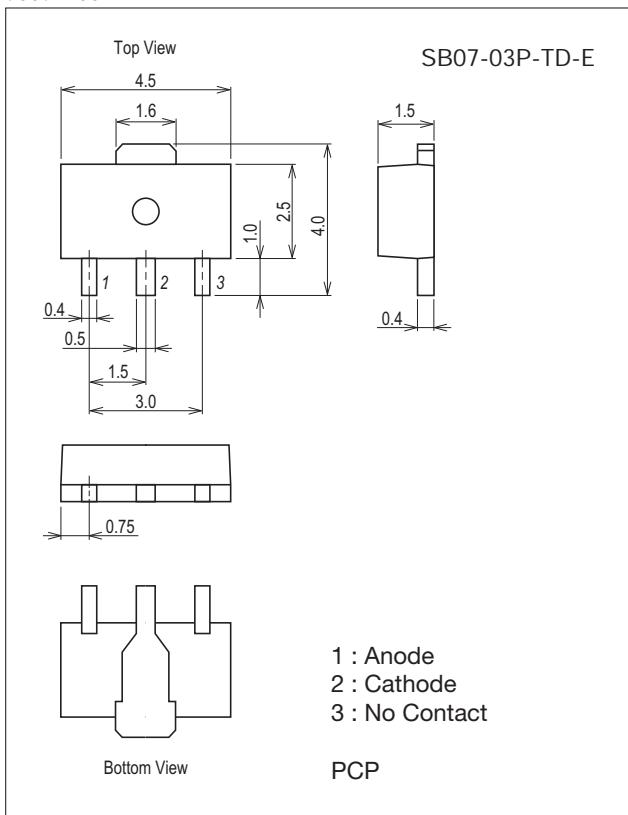
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V _{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V _{RSM}		35	V
Average Output Current	I _O		700	mA
Surge Forward Current	I _{FSM}	50Hz sine wave, 1 cycle	5	A
Junction Temperature	T _J		-55 to +125	°C
Storage Temperature	T _{STG}		-55 to +125	°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.

Package Dimensions

unit : mm (typ)

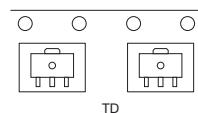
7007B-001



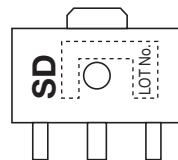
Product & Package Information

- Package : PCP
- JEITA, JEDEC : SC-62, SOT-89, TO-243
- Minimum Packing Quantity : 1,000 pcs./reel

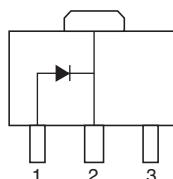
Packing Type: TD



Marking

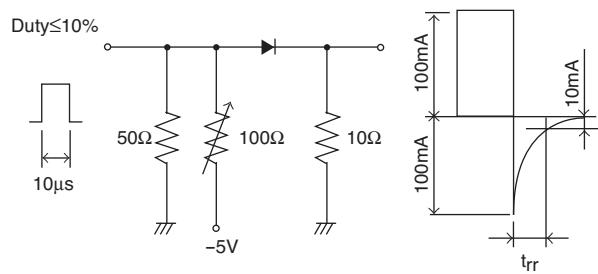


Electrical Connection



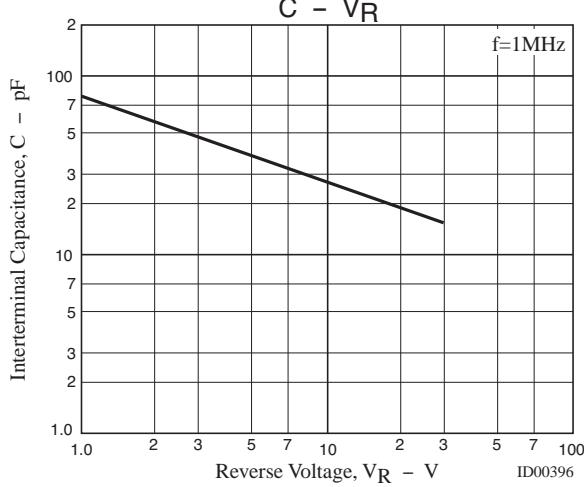
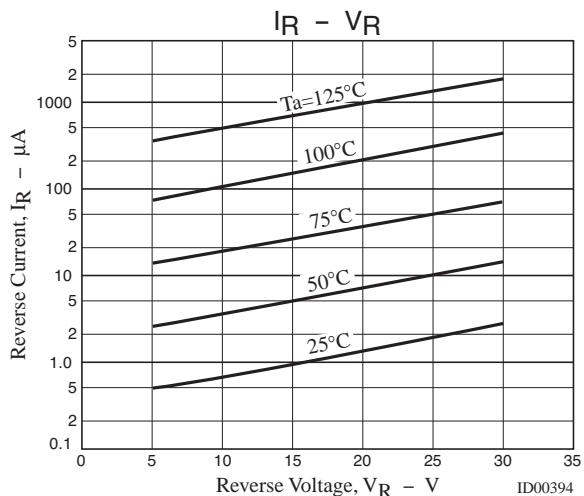
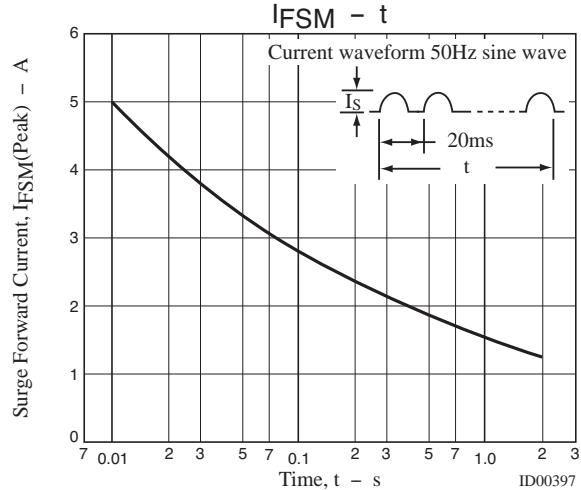
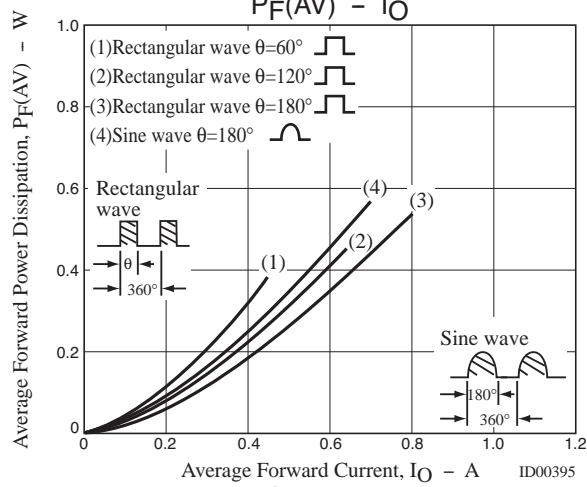
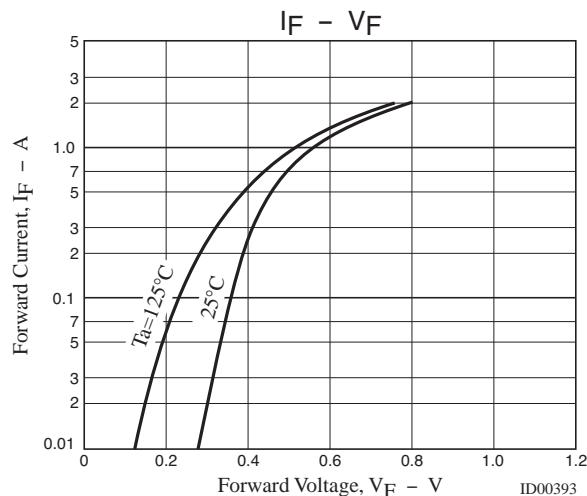
Electrical Characteristics at $T_a=25^{\circ}\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=300\mu\text{A}$	30			V
Forward Voltage	V_F	$I_F=700\text{mA}$			0.55	V
Reverse Current	I_R	$V_R=15\text{V}$			80	μA
Interterminal Capacitance	C	$V_R=10\text{V}, f=1\text{MHz}$		26		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)1}$			310		$^{\circ}\text{C} / \text{W}$
	$R_{th(j-a)2}$	When mounted on ceramic substrate (250mm 2 ×0.8mm)		120		$^{\circ}\text{C} / \text{W}$

 t_{rr} Test Circuit

Ordering Information

Device	Package	Shipping	memo
SB07-03P-TD-E	PCP	1,000pcs./reel	Pb Free

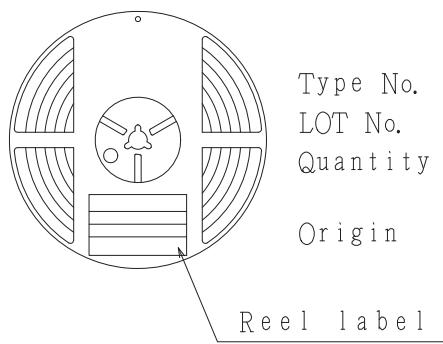


Embossed Taping Specification

SB07-03P-TD-E

1. 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)
PCP	PCP	1,000	4,000	24,000	4 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Packing methodReel label, Inner box label

(unit:mm)

Type No. →
LOT No. →
Quantity →
Origin →

69
43
80

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
LOT	
PACKAGE	
SPECIAL	

Z0722005310C
ASSEMBLY:**** (DIFFUSION:****)

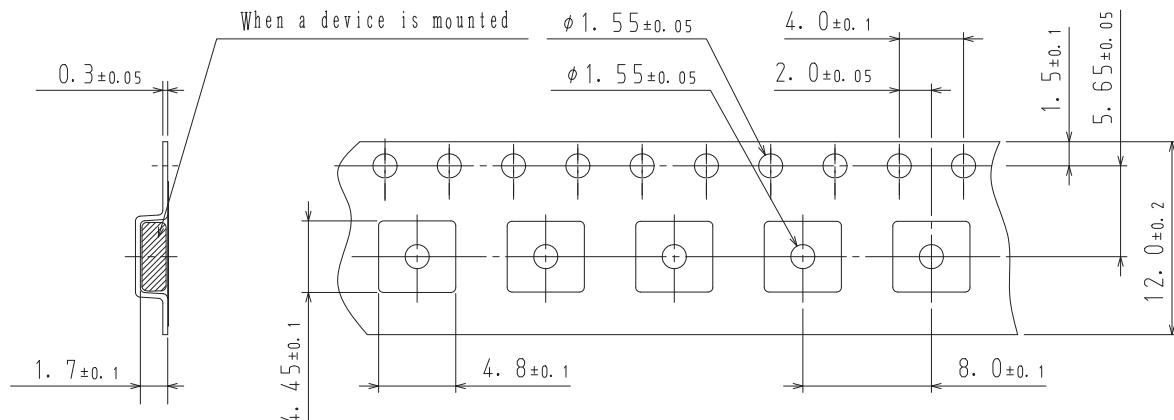
NOTE (1)

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

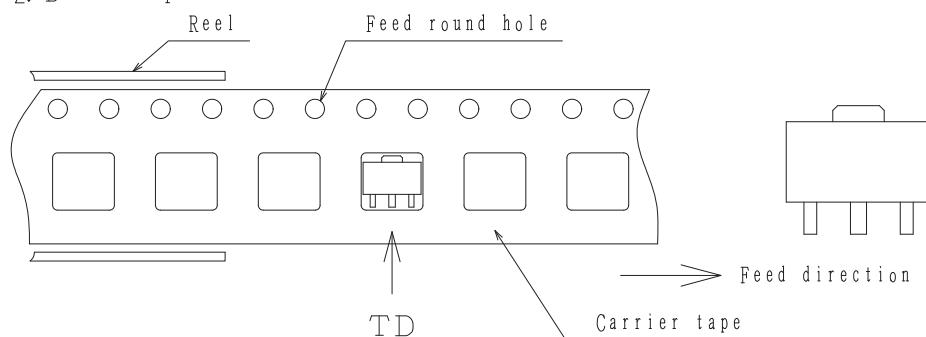
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



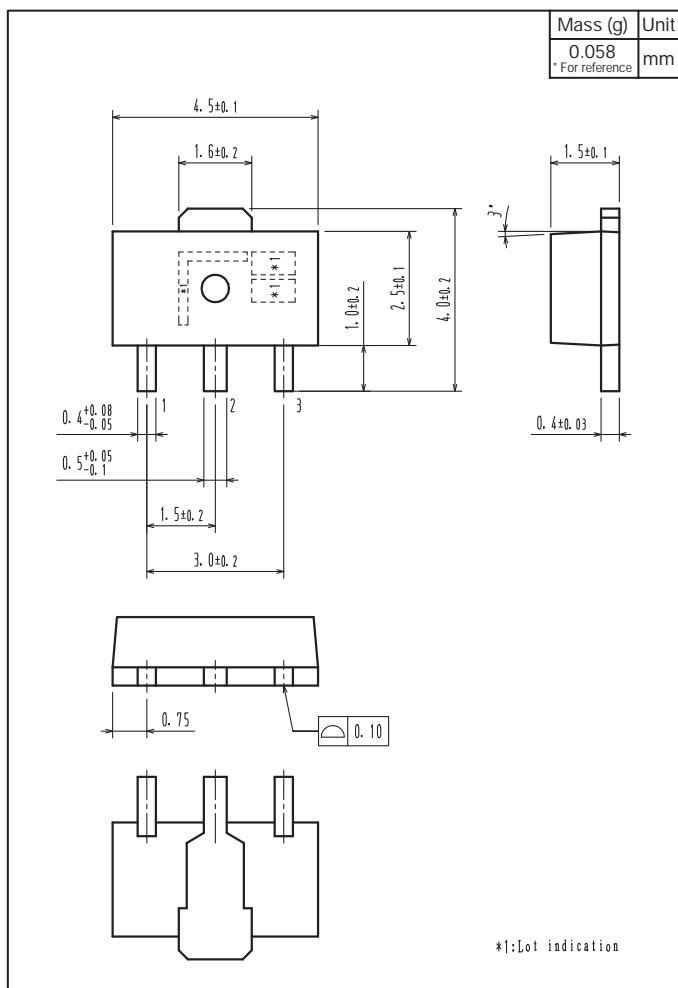
2-2. Device placement direction



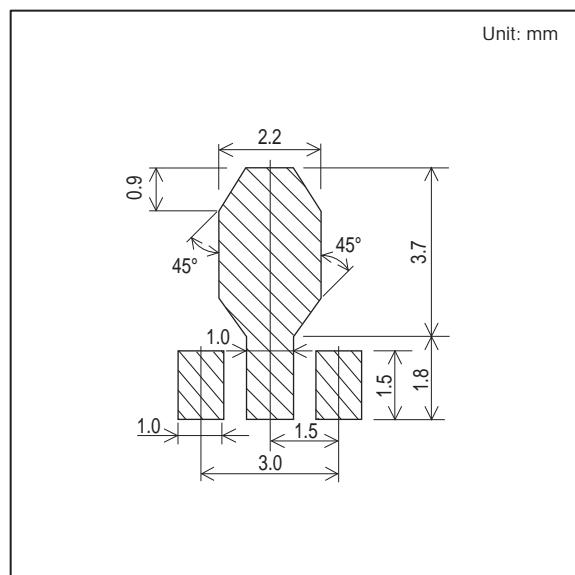
Those with pin 1 index on the feed hole side.....TD

Outline Drawing

SB07-03P-TD-E



Land Pattern Example



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