



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SB05W05C

Schottky Barrier Diode 50V, 0.5A, Low IR, Monolithic Dual CP Common Cathode

ON Semiconductor®

<http://onsemi.com>

Applications

- Universal-use rectifier
- High frequency rectification (switching regulators, converters, choppers)

Features

- Low forward voltage ($V_F \text{ max}=0.55\text{V}$)
- Low switching noise
- Low leakage current and high reliability due to highly reliable planar structure
- Small-sized package, permitting applied sets to be compact and slim
- Fast reverse recovery time ($t_{rr} \text{ max}=10\text{ns}$)

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$ (Value per element)

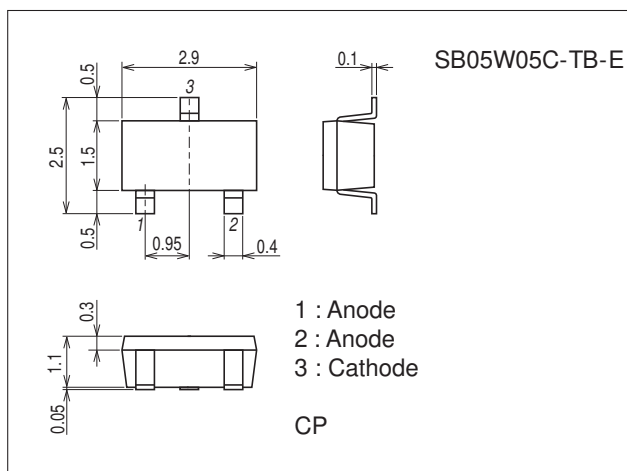
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		50	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		55	V
Average Output Current	IO		500	mA
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	5	A
Junction Temperature	Tj		-55 to +125	°C
Storage Temperature	Tstg		-55 to +125	°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)

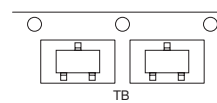
7013A-006



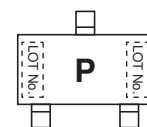
Product & Package Information

- Package : CP
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

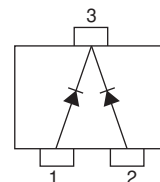
Packing Type: TB



Marking



Electrical Connection

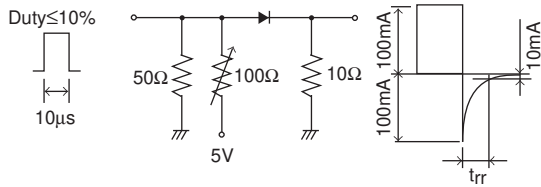


SB05W05C

Electrical Characteristics at Ta=25°C (Value per element)

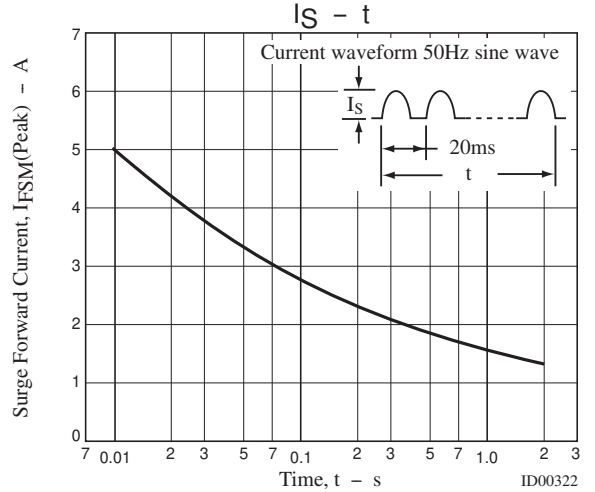
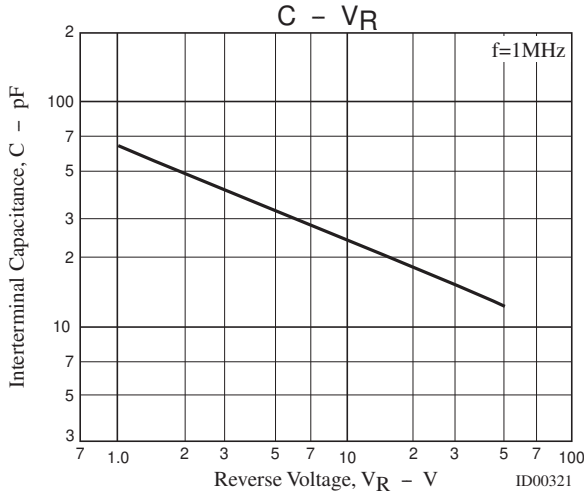
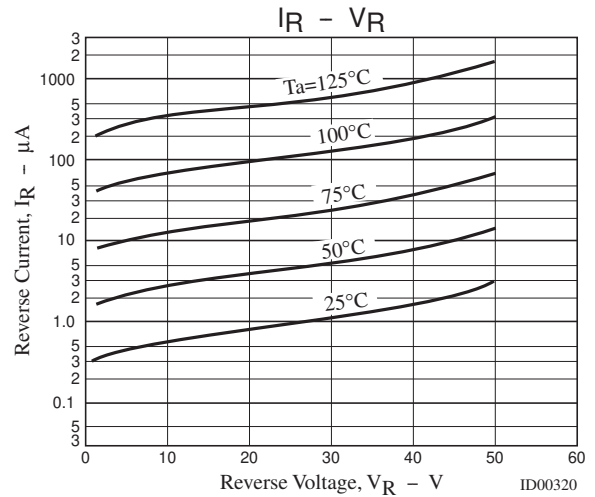
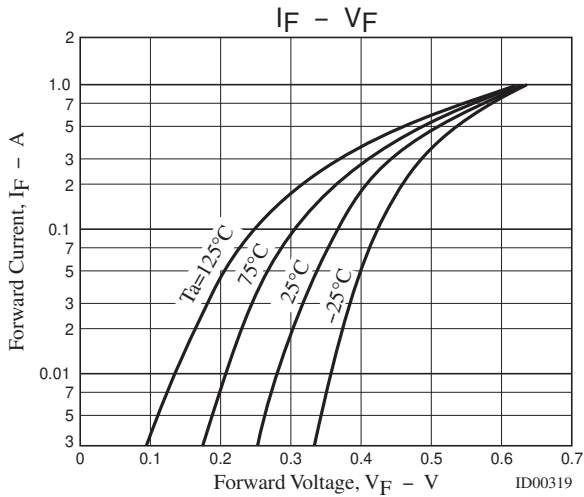
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=200\mu A$	50			V
Forward Voltage	V_F	$I_F=500mA$			0.55	V
Reverse Current	I_R	$V_R=25V$			50	μA
Interterminal Capacitance	C	$V_R=10V, f=1MHz$		24		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100mA$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$			420		$^{\circ}C / W$

t_{rr} Test Circuit



Ordering Information

Device	Package	Shipping	memo
SB05W05C-TB-E	CP	3,000pcs./reel	Pb Free



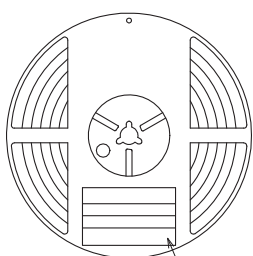
Embossed Taping Specification

SB05W05C-TB-E

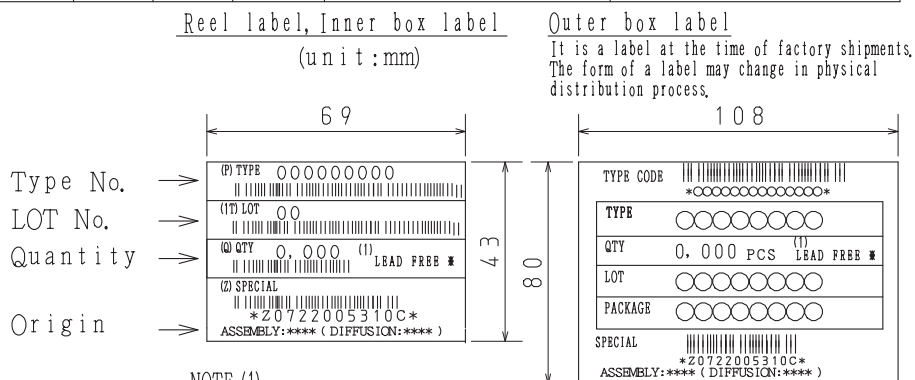
1. Packing Format

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)
CP	CP	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Packing method



Reel label



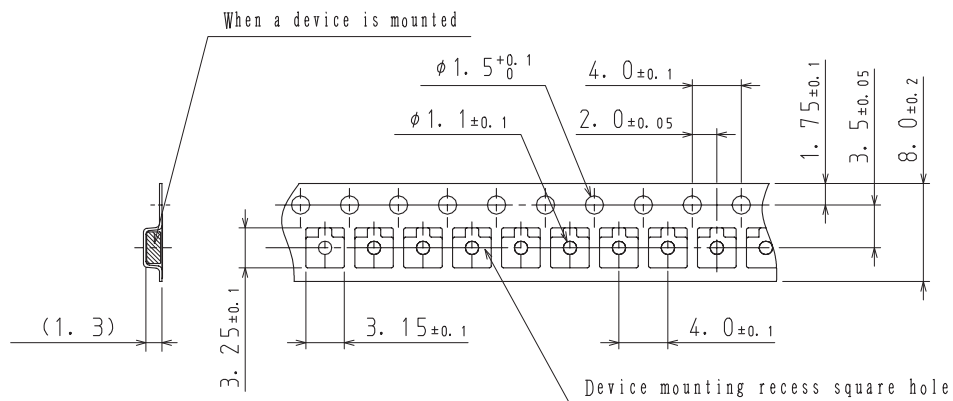
NOTE (1)

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

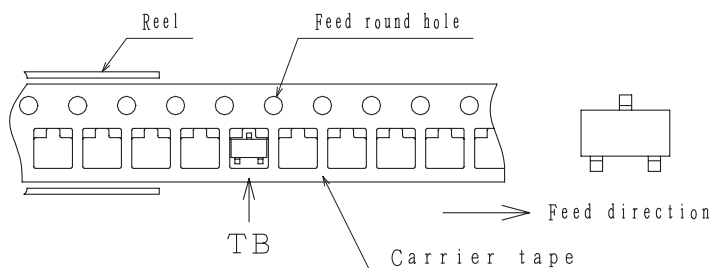
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



2-2. Device placement direction

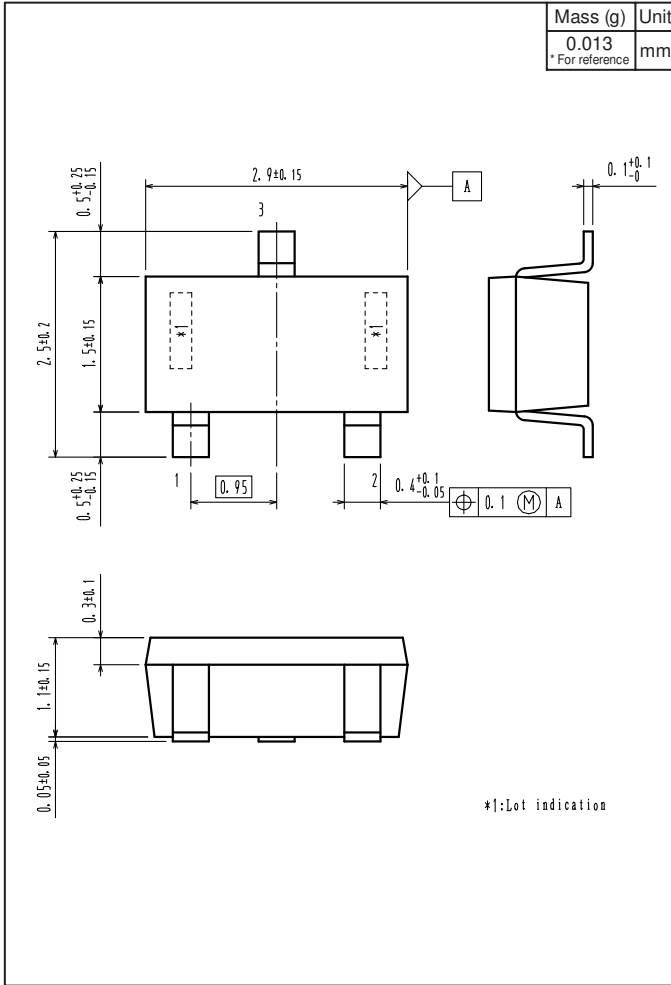


Those with one electrode terminal on the feed hole side.....TB

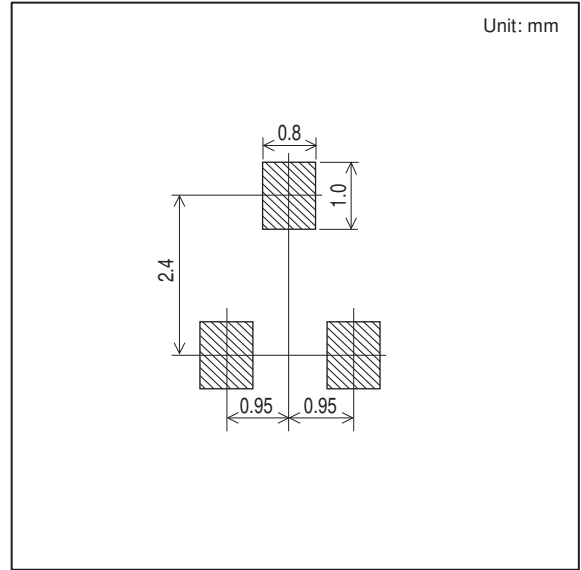
SB05W05C

Outline Drawing

SB05W05C-TB-E



Land Pattern Example



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