# SB01-15C

# Schottky Barrier Diode 150V, 0.1A, Low IR, Single CP



## **Applications**

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

### Features

- Low forward voltage (VF max=0.75V)
- Fast reverse recovery time (t<sub>rr</sub> max=10ns)

- Low switching noise
- · Low leakage current and high reliability due to highly reliable planar structure

## Specifications

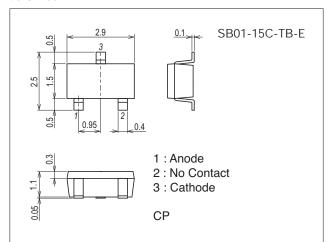
#### Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>		150	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		155	V
Average Output Current	IO		100	mA
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	5	А
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-004



#### Product & Package Information

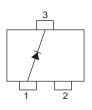
- Package : CP
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

#### Packing Type: TB



Marking

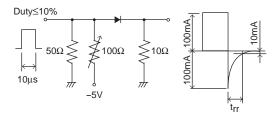
#### **Electrical Connection**



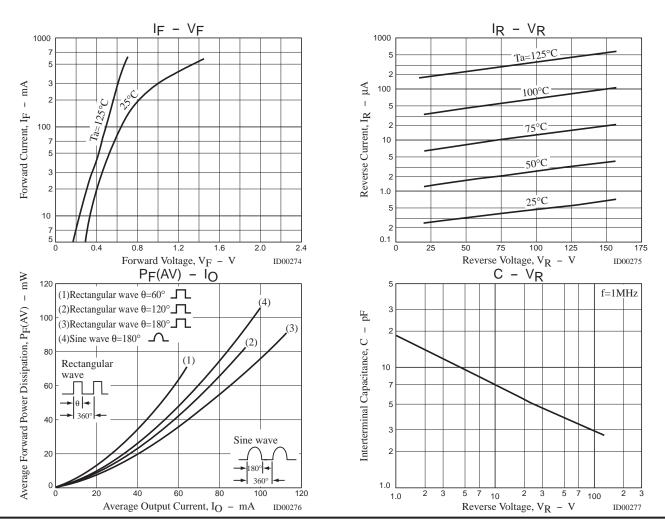
#### Electrical Characteristics at Ta=25°C

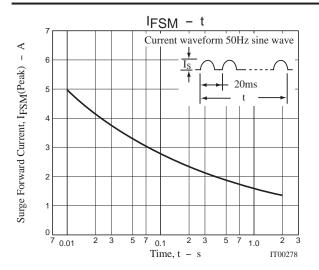
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Reverse Voltage	VR	IR=200μA	150			V
Forward Voltage	VF	IF=100mA			0.75	V
Reverse Current	IR	V <sub>R</sub> =75V			50	μΑ
Interterminal Capacitance	С	V <sub>R</sub> =10V, f=1MHz		7		рF
Reverse Recovery Time	t <sub>rr</sub>	IF=IR=100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)1			420		°C / W
	Rth(j-a)2	Mounted in Cu-foiled area of 16mm <sup>2</sup> ×0.2mm on glass epoxy board		330		°C / W

#### trr Test Circuit



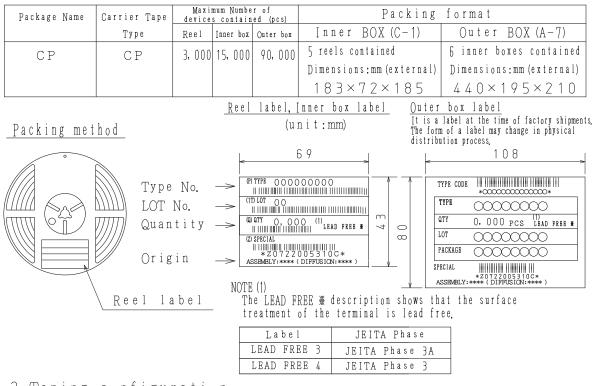
#### **Ordering Information**



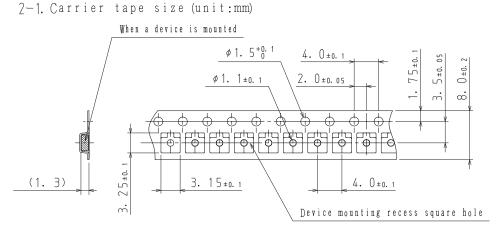


#### Embossed Taping Specification SB01-15C-TB-E

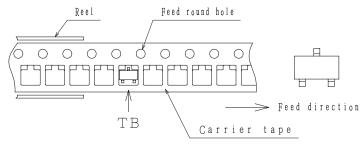
1. Packing Format



#### 2. Taping configuration

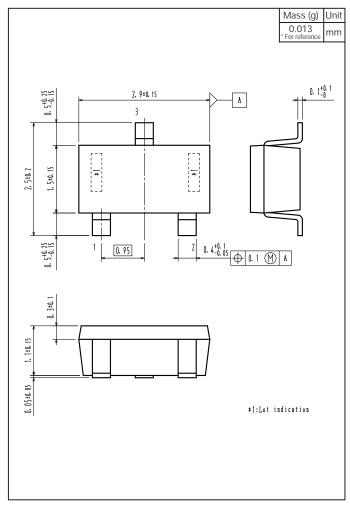


2-2. Device placement direction

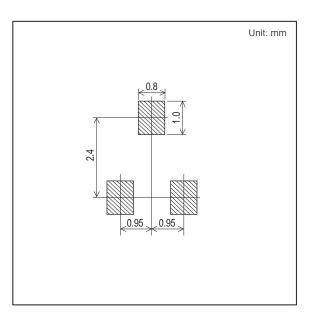


Those with one electrode terminal on the feed hole side ..... TB

#### Outline Drawing SB01-15C-TB-E



#### Land Pattern Example



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