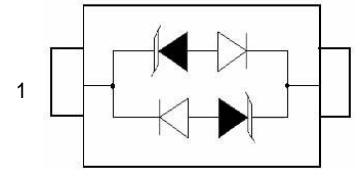


**Features**

- 150Watts peak pulse power (tp=8/20μs)
- Ultra low capacitance: 1.5pF maximum
- Low clamping voltage
- Weight 5.0mg
- Small package: SOD-323



SOD-323 ②

**Part Number and Electrical Parameter**

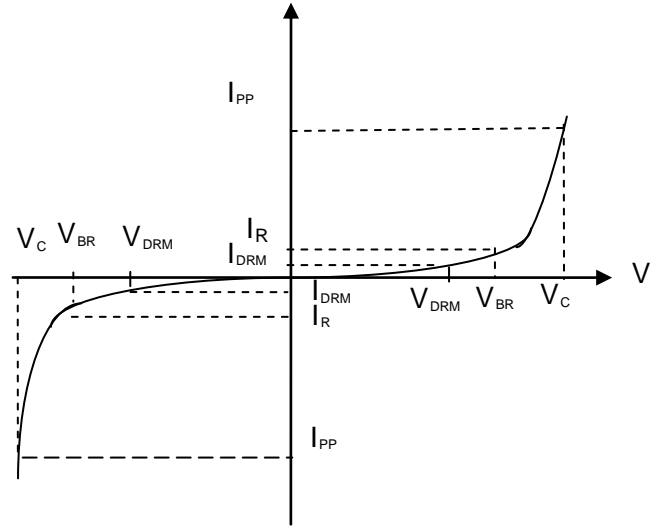
Part Number	I <sub>DRM</sub> @V <sub>DRM</sub>		V <sub>BR</sub> @I <sub>R</sub>		V <sub>c</sub> @I <sub>pp</sub>		V <sub>c</sub> @I <sub>pp</sub>		Co
	μA	V	V	mA	V	A	V	A	pF
	MAX		MIN		MAX		MAX		MAX
BV05C	5	5	6	1	9.8	1	18.3	8	1.5

Absolute maximum ratings measured at T= 25°C RH = 45%-75% (unless otherwise noted).

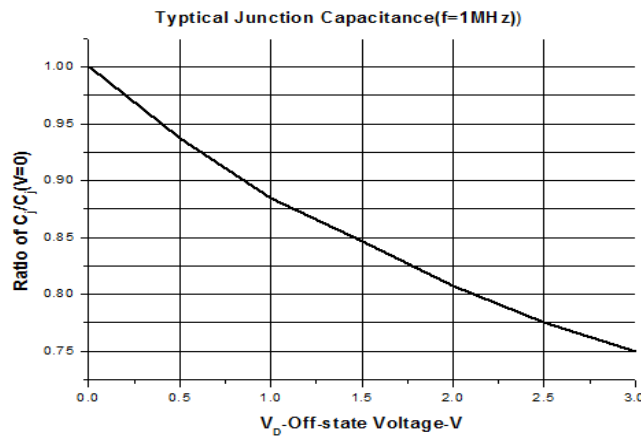
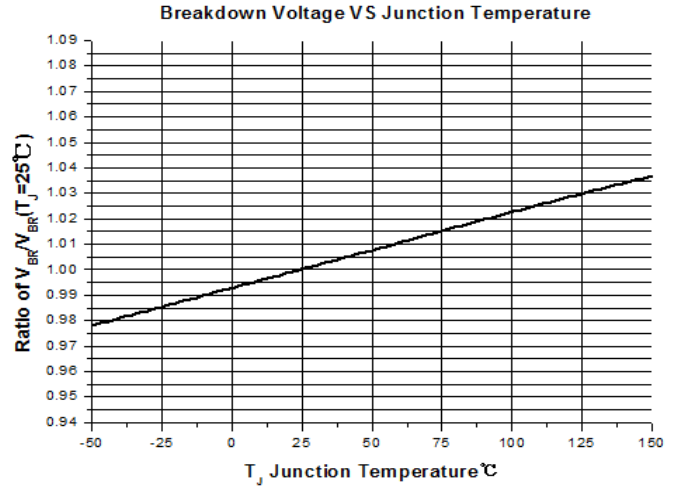
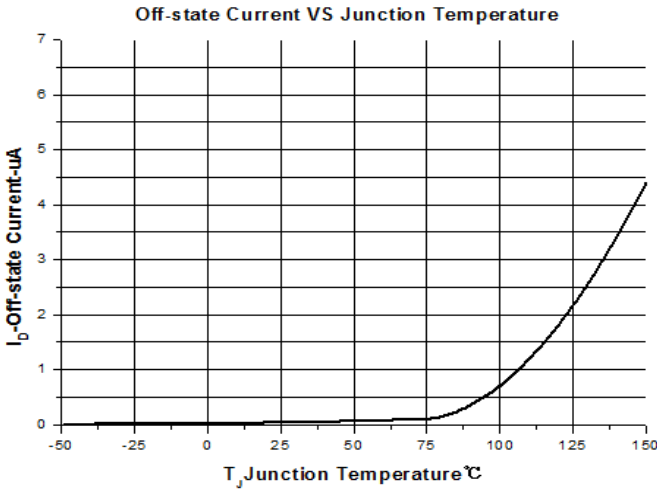
- ① V<sub>BR</sub> is measured at I<sub>R</sub>=1mA
- ② Surge Waveform: 8/20us.
- ③ Off-state capacitance is measured in V<sub>DC</sub>=0V, V<sub>RMS</sub>=1V, f=1MHz.

**V-I Curve**

Parameters	Definition
$V_C$	Clamping voltage
$I_{PP}$	Surge waveform 8/20us
$V_{DRM}$	Stand-off Voltage
$V_{BR}$	Breakdown Voltage
$I_{DRM}$	Reverse Leakage Current
$I_R$	Test current
$P_{pp}$	Peak Pulse Power Dissipation



**Typical Characteristics**



**Thermal Considerations**

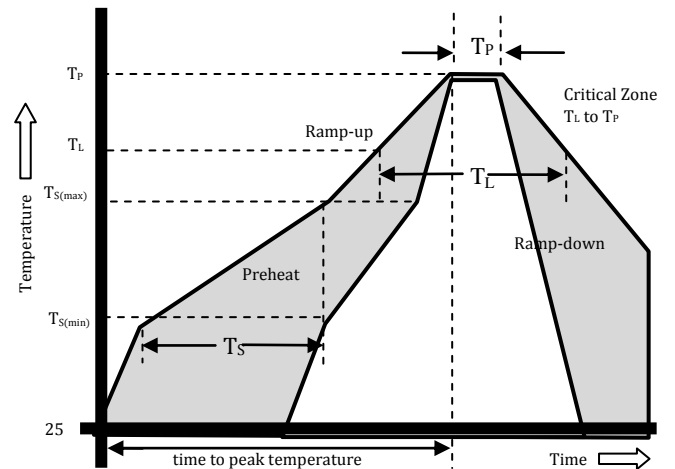
symbol	Parameter	Value	Unit
$T_J$	Operating Junction Temperature Range	-55 to +150	°C
$T_S$	Storage Temperature Range	-55 to +150	°C

**Environmental Characteristics**

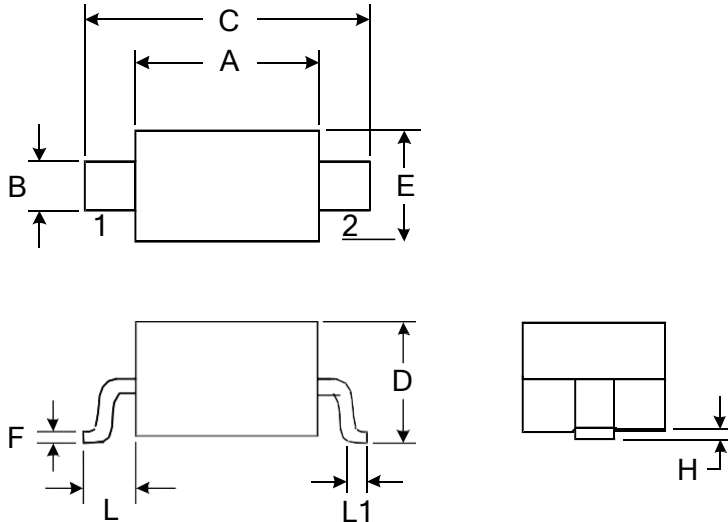
Testing items	Technical standards
High temperature Reverse Bias Test	Temperature: 150±3°C Bias=80%V <sub>DRM</sub> Time:168H
High Temperature LifeTest	Temperature: 150°C Time:168H
High-low Temperature Cycle test	Temperature: From -40°C to125°C Dwell time : 30min,10cycles
High Temperature &High Humidity Test	Temperature: 85°C Humidity:85% Time:168H
Pressure cooker Test	Temperature: 121°C, 2atm. Humidity:100% Time:24H
Resistance of soldering heat	Temperature: 260±5°C Time of dip soldering: 10s, 3times

**ReflowProfile**

Reflow Condition		Pb-Free assembly
Pre Heat	Temperature Min	150°C
	Temperature Max	200°C
	Time (min to max)	60 – 180 secs
Average ramp up rate (Liquid) T <sub>amp</sub> (T <sub>L</sub> ) to peak		3°C/s max
T <sub>S(max)</sub> to T <sub>L</sub> - Ramp-up Rate		3°C/s max
Reflow	- Temperature (T <sub>L</sub> ) (Liquid)	217°C
	- Temperature (T <sub>L</sub> )	60 – 150 secs
Peak Temperature (T <sub>P</sub> )		260+0/ -5 °C
Time within 5°C of actual peak Temperature (T <sub>P</sub> )		30 secs
Ramp-down Rate		6°C/s max
Time 25°C to peak Temperature (T <sub>P</sub> )		8 mins Max.
Do not exceed		260°C



**Outline Drawing – SOD323**



DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D		1.000		0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475 REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

**Marking**



**Ordering information**

Order code	Package	Base qty	Delivery mode	Marking
UMW BV05C	SOD323	3000	Tape and reel	AC

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