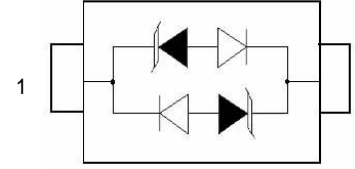


Features

- 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

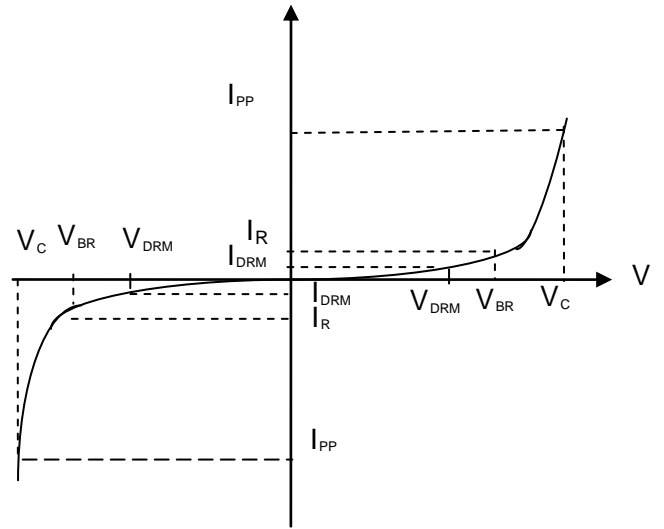
Part Number	I _{DRM} @V _{DRM}		V _{BR} @I _R		V _c @I _{pp}		V _c @I _{pp}		Co
	μA	V	V	mA	V	A	V	A	pF
	MAX		MIN		MAX		MAX		MAX
BV05C	5	5	6	1	9.8	1	18.3	8	1.5

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

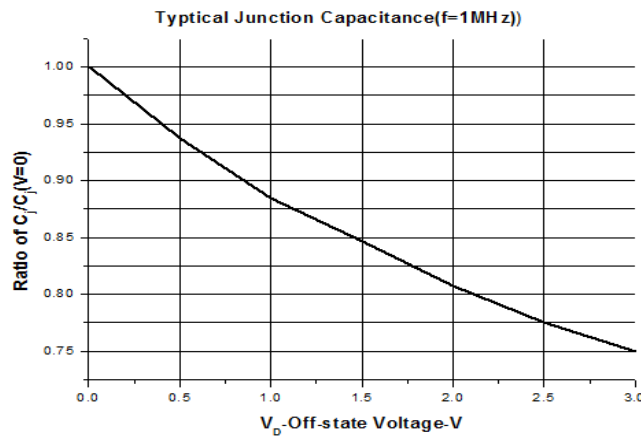
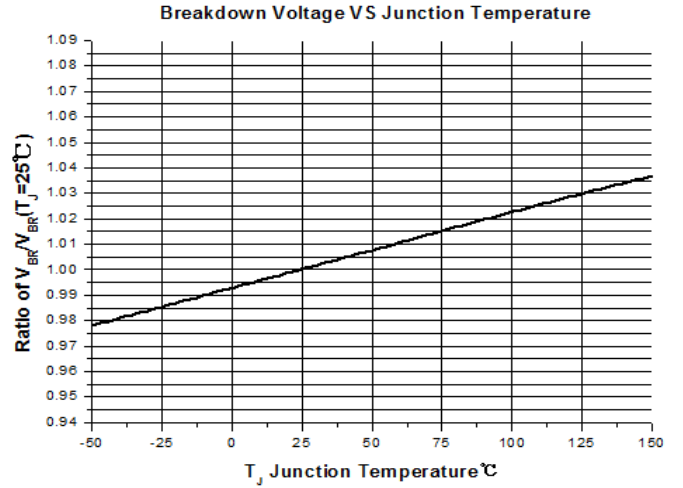
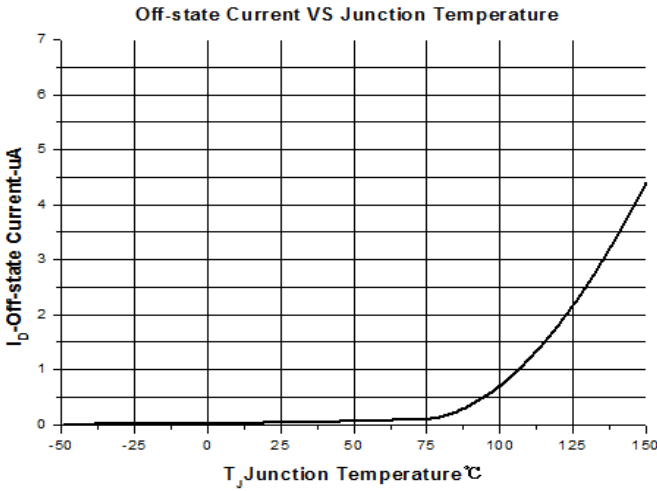
- ① V_{BR} is measured at I_R=1mA
- ② Surge Waveform: 8/20us.
- ③ Off-state capacitance is measured in V_{DC}=0V, V_{RMS}=1V, f=1MHz.

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

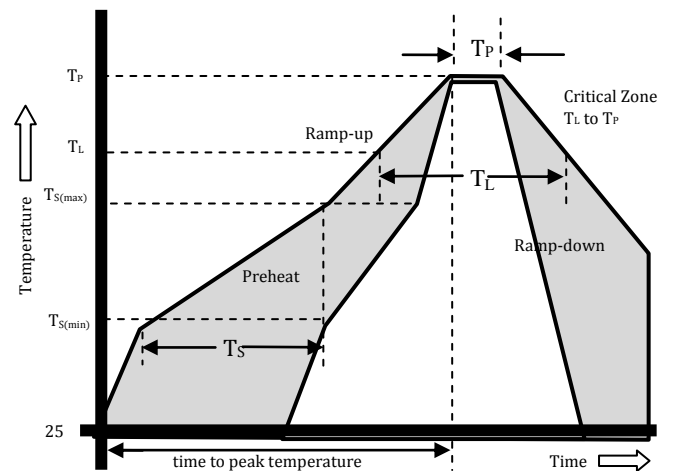
symbol	Parameter	Value	Unit
T_J	Operating Junction Temperature Range	-55 to +150	$^{\circ}C$
T_S	Storage Temperature Range	-55 to +150	$^{\circ}C$

Environmental Characteristics

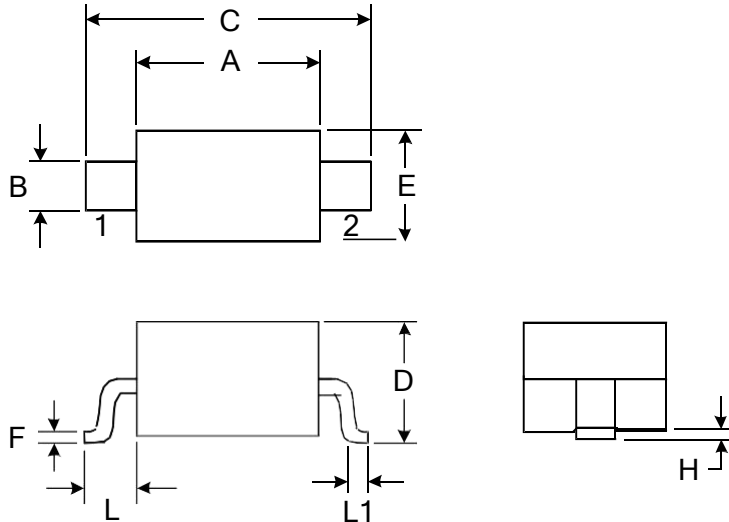
Testing items	Technical standards
High temperature Reverse Bias Test	Temperature: 150±3°C Bias=80%V _{DRM} Time:168H
High Temperature LifeTest	Temperature: 150°C Time:168H
High-low Temperature Cycle test	Temperature: From -40°C to125°C Dwell time : 30min,10cycles
High Temperature &High Humidity Test	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 _{amp} (T _L) to peak		3°C/s max
T _{S(max)} to T _L - Ramp-up Rate		3°C/s max
Reflow	- Temperature (T _L) (Liquid)	217°C
	- Temperature (T _L)	60 – 150 secs
Peak Temperature (T _P)		260+0/ -5 °C
Time within 5°C of actual peak Temperature (T _P)		30 secs
Ramp-down Rate		6°C/s max
Time 25°C to peak Temperature (T _P)		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