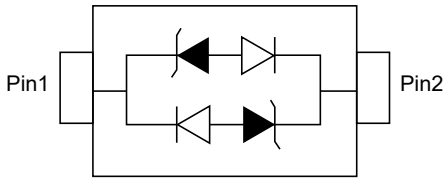
UMW BV05C

1.Features

- IEC 61000-4-2(ESD)+30KV(air),+ 30KV(contact)
- 150Watts peak pulse power (t_p=8/20μs)
- Ultra low capacitance: 1.5pF maximum
- Low clamping voltage
- Weight 5.0mg
- Small package: SOD-323

2.Pinning information



SOD-323

3.Part Number and Electrical Parameter

Part Number	I_{DRM}@V_{DRM}		V_{BR}①@I_R		V_C@I_{PP}②		V_C@I_{PP}②		C_O
	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

Notes:

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

① V_{BR} is measured at I_R=1mA.

② Surge Waveform: 8/20μs.

③ Off-state capacitance is measured in V_{DC}=0V,V_{RMS}=1V,f=1MHz.

4.Thermal Considerations

Parameter	Symbol	Value	Units
Junction Temperature Range	T_J	-55 to 150	°C
Storage Temperature Range	T_S	-55 to 150	°C

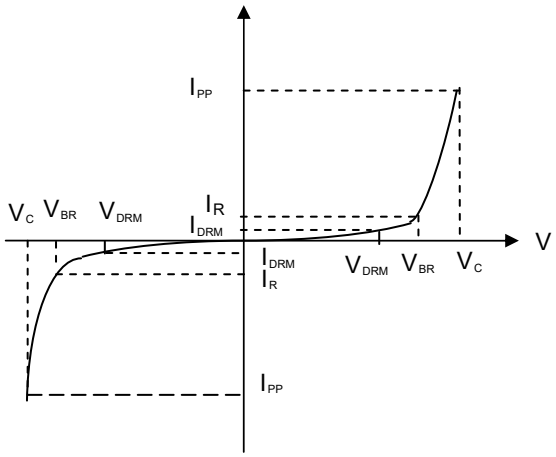
5.Environmental Characteristics

Parameter	Technical standards
High Temperature Reverse Bias Test	Temperature: 150±3°C Bias=80%V_{DRM} , Time:168H
High Temperature Life Test	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

Notes:

The above testing items can be specified by customer's special request.

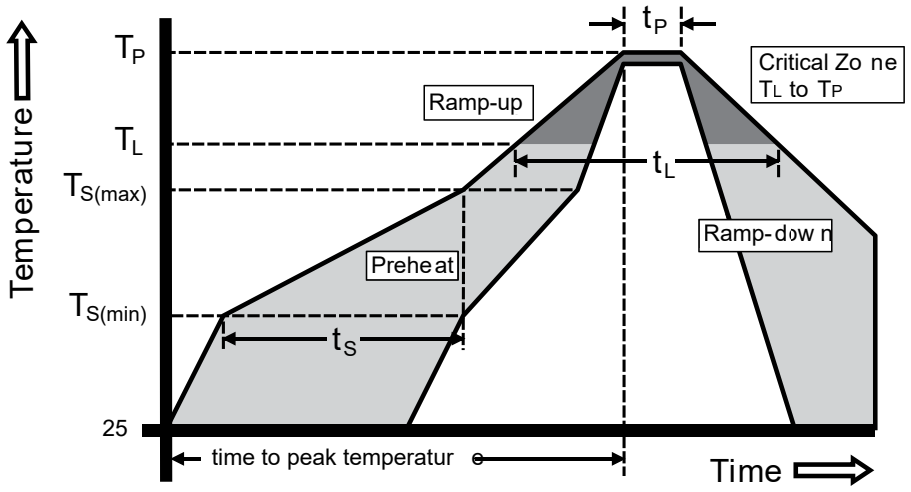
6.Electrical Parameters (T_A=25°C unless otherwise noted)



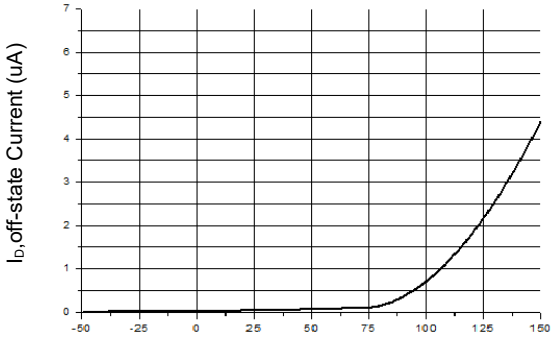
Symbol	Parameter
V_C	Clamping Voltage
I_{PP}	Surge Waveform 8/20μs
V_{DRM}	Stand-off Voltage
V_{BR}	Breakdown Voltage
I_{DRM}	Reverse Leakage Current
I_R	Test Current
P_{PP}	Peak Pulse Power Dissipation

7.Soldering parameters

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) Tamp (T_L) to peal		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquidus)	217°C
	-Temperature(T_L)	60-150 secs.
Peak Temp (T_p)		+250 $^{+0/-5}$ °C
Time within 5°C of actual Peak Temp (T_p)		30 secs
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_p)		8 min. Max
Do not exceed		260°C

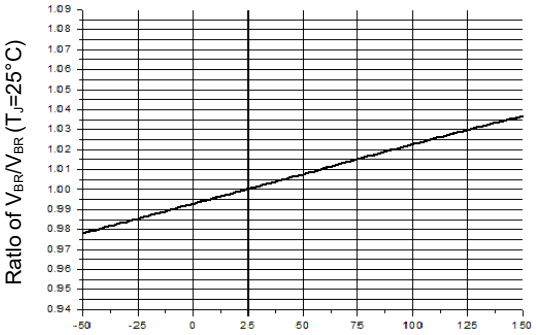


8.Typical characteristic



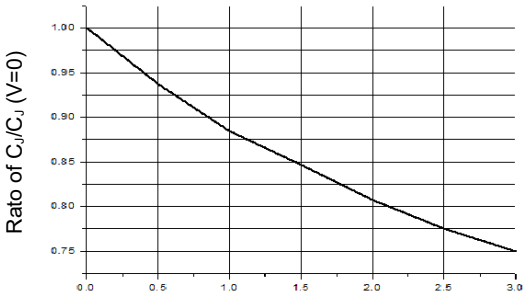
T_J,Junction Temperature(°C)

Figure 1: Off-state Current VS Junction Temperature



T_J,Junction Temperature(°C)

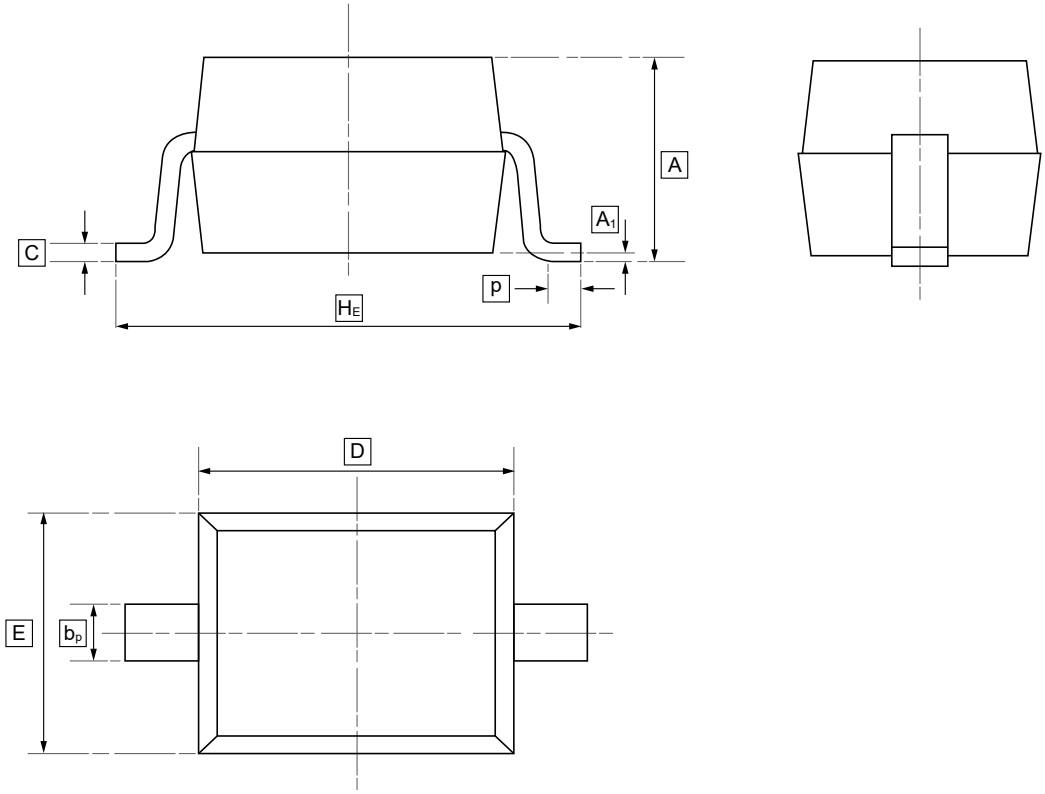
Figure 2: Breakdown Voltage Vs Junction Temperature



V_D, Off-state Voltage (V)

Figure 3: Typtical Junction Capacitance(f=1MHz))

9.SOD-323 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	b_p	C	D	E	H_E	A_1	p
Min	0.80	0.25	0.10	1.50	1.15	2.30	0.01	0.20
Max	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50

10.Ordering information



ww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW BV05C	SOD-323	3000	Tape and reel



11.Disclaimer

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