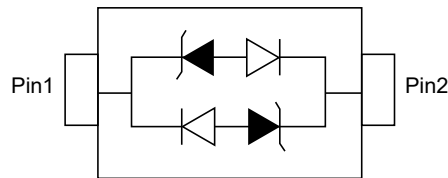


1.Features

- IEC 61000-4-2(ESD)+30KV(air),+ 30KV(contact)
- 150Watts peak pulse power ($t_p=8/20\mu s$)
- 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 $T=25^{\circ}C$ RH=45%-75% (unless otherwise noted).

① V_{BR} is measured at $I_R=1mA$.

② Surge Waveform: 8/20 μs .

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

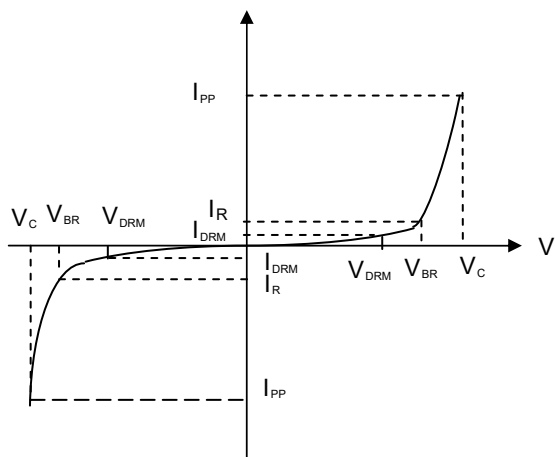


5.Environmental Characteristics

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)

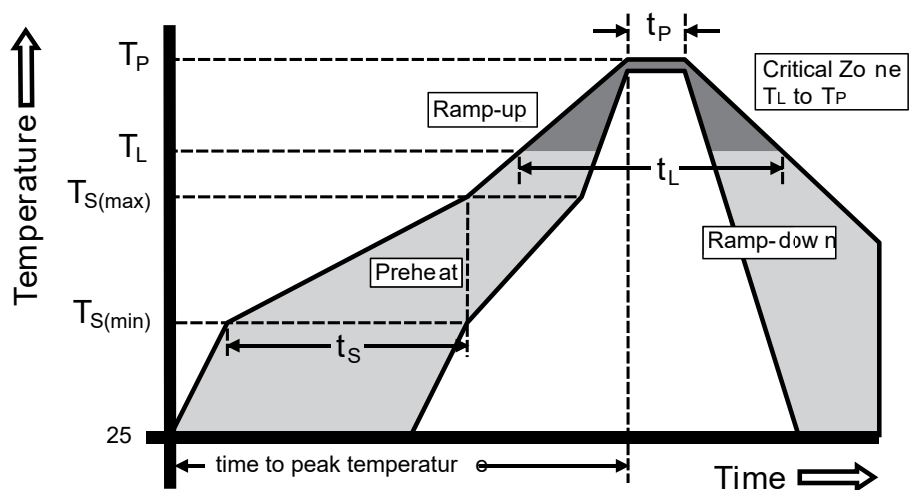


Symbol	Parameter
V _C	Clamping Voltage
I _{PP}	Surge Waveform 8/20μs
V _{DRM}	Stand-off Voltage
V _{BR}	Breakdown Voltage
I _{DRM}	Reverse Leakage Current
I _R	Test Current
P _{PP}	Peak Pulse Power Dissipation



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) Temp (T_L) to peak		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

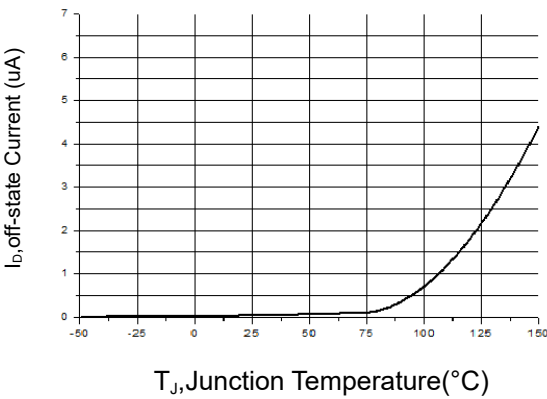


Figure 1: Off-state Current VS Junction Temperature

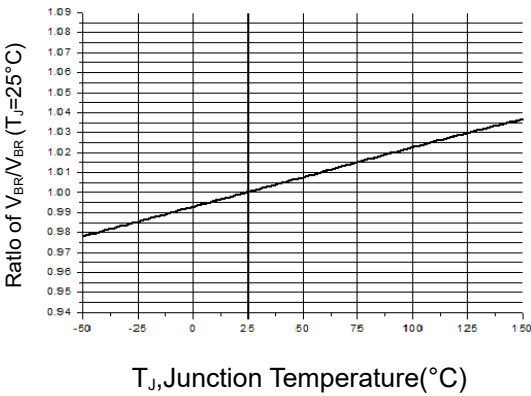


Figure 2: Breakdown Voltage Vs Junction Temperature

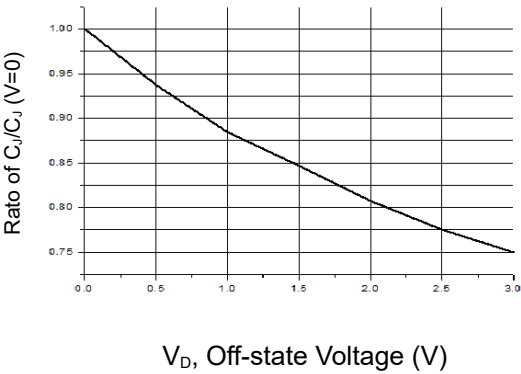
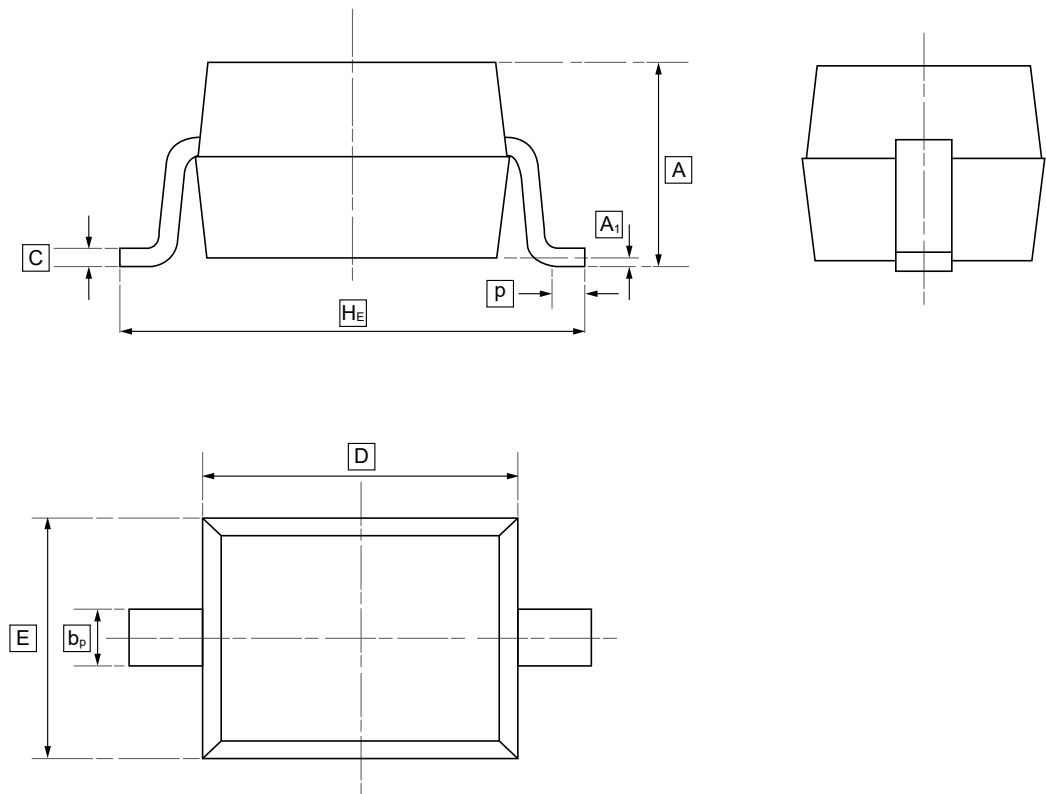


Figure 3: Typical Junction Capacitance($f=1\text{MHz}$)



9.SOD-323 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	bp	C	D	E	HE	A ₁	p
Min	0.90	0.25	0.10	1.60	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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