

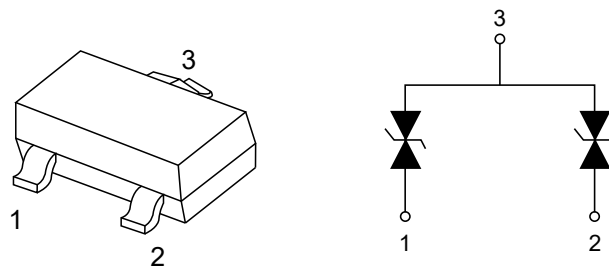
1.Features

- Bidirectional device
- Max. pulse power: 140W (8/20 μ s)
- Low clamping factor VCL/VBR
- Low leakage current

2.Applications

- Automotive interfaces

3.Pinning information



SOT-23

4.Absolute Maximum Ratings

Parameter		Symbol	Value	Units
Peak pulse voltage	ISO 10605-C =150pF, R=330 Ω :Contact discharge	V_{PP}	13	kV
	Air discharge		13	
	ISO 10605-C = 330pF, R=330 Ω : Contact discharge		10	
	Air discharge		10	
	ISO 10605-C = 330 pF, R=2 k Ω : Contact discharge		30	
	Air discharge		30	
Peak pulse power dissipation (8/20 μ s) T_j initial = T_{amb}		P_{PP}	140	W
Peak pulse current (8/20 μ s)		I_{PP}	5.5	A
Junction temperature range		T_J	-55 to 150	$^{\circ}$ C
Storage temperature range		T_{STG}	-55 to 150	$^{\circ}$ C

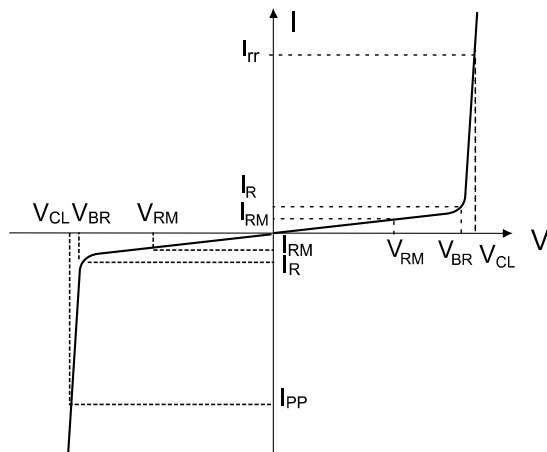


5. Electrical Characteristics

Conditions	Symbol	Min	Typ	Max	Units
$I_R=1\text{mA}$	V_{BR}	6		10	V
$V_{RM}=5\text{V}$	I_R			100	nA
At $I_{PP}=1\text{A} - 8/20\mu\text{s}$	V_{CL}			12	V
At $I_{PP}=4\text{A} - 8/20\mu\text{s}$				17	V
$V_{I/O}=0\text{V}$, $f=1\text{MHz}$, $V_{OSC}=30\text{mV}$	$C_{I/O-GND}$		0.95	1.2	pF
	$\Delta C_{I/O-GND}$		0.01		pF
$S_{21}=-3\text{ dB}$	f_c		3		GHz
	$\alpha T^{(1)}$		9		$10^{-4}/^\circ\text{C}$

Notes: 1. V_{BR} at $T_j=V_{BR}$ at $25^\circ\text{C} \times (1 + \alpha T \times (T_j - 25))$

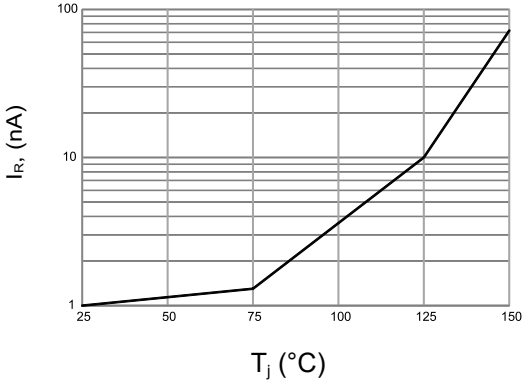
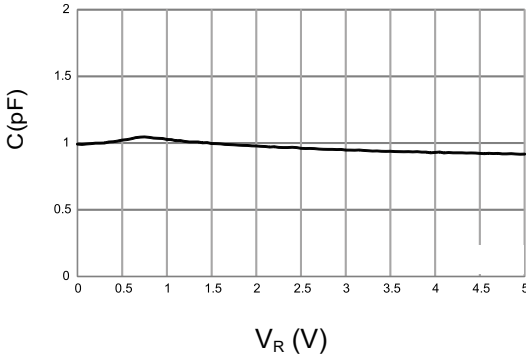
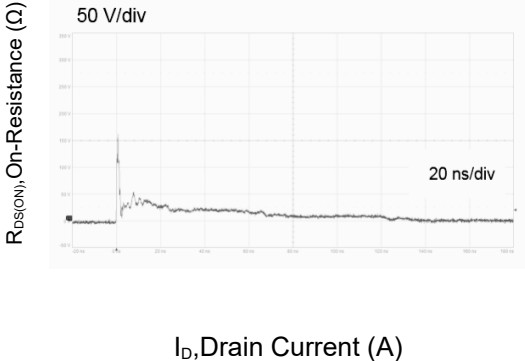
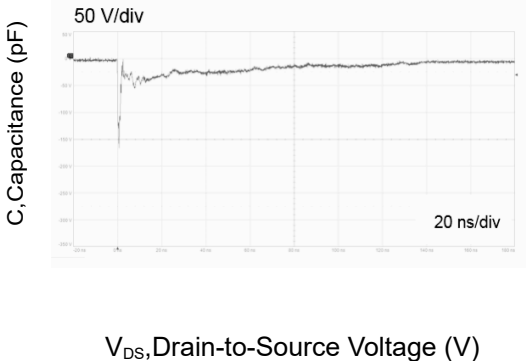
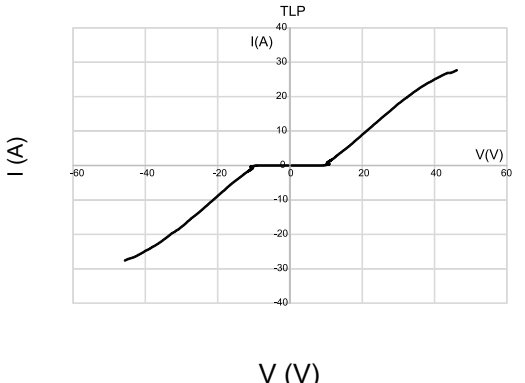
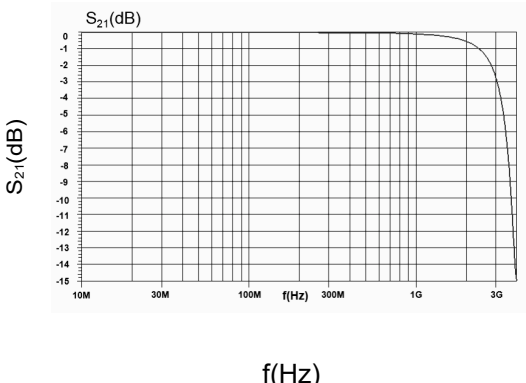
6. Electrical Parameters ($T_A=25^\circ\text{C}$ unless otherwise noted)



Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F



7.1Typical characteristic

	
Figure 1: Leakage current versus junction temperature	Figure 2: Junction capacitance versus reverse applied voltage
	
Figure 3: . ESD response to ISO10605-C=150pF R=330Ω (+8 kV contact discharge)	Figure 4: ESD response to ISO10605-C=150 pF R=330 Ω (-8 kV contact discharge)
	
Figure 5: TLP	Figure 6: S21 attenuation

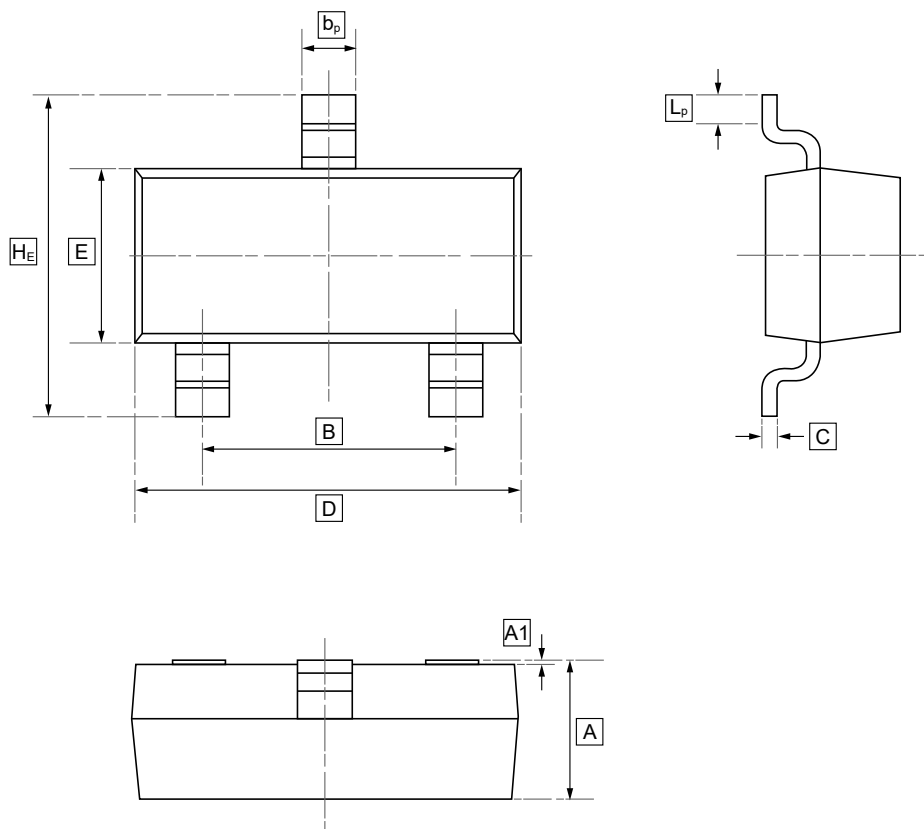


7.2Typical characteristic

Figure 7: Fast transient pulse 3a (Us = -150 V)	Figure 8: Fast transient pulse 3b (Us = +150 V)
Figure 9: Slow transient pulse 2a (Us = - 85 V)	Figure 10: Slow transient pulse 2a (Us = + 85 V)



8.SOT-23 Package Outline Dimensions

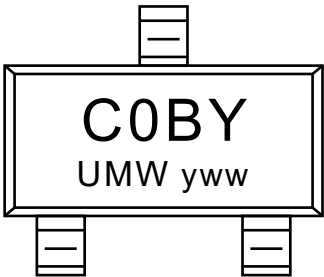


DIMENSIONS (mm are the original dimensions)

Symbol	A	B	b_p	C	D	E	H_E	A1	L_p
Min	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20
Max	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50



9.Ordering information



yww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW ESDAVLC6-2BLY	SOT-23	3000	Tape and reel



10.Disclaimer

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