

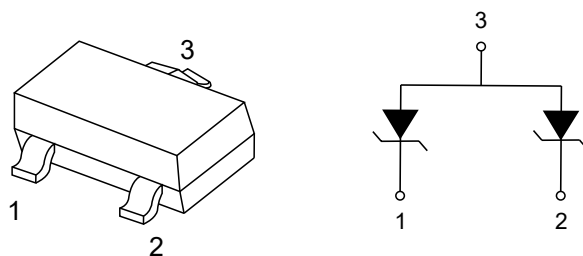
1.Features

- ESD / transient protection of CAN/LIN bus networks power supply lines according to:
IEC61000-4-2 (ESD): ± 30 kV (air / contact)
IEC61000-4-4 (EFT): 80 A (5/50 ns)
IEC61000-4-5 (surge): 5 A (8/20 μ s)
ISO7637-2: Pulse 1 (max. 50 V),
Pulse 2 (max. 125 V), Pulse 3a, b (max.800 V)
- Max. working voltage: 24 V
- Low capacitance: 24 pF typ.
- Low clamping voltage: < 41 V
- Extremely low reverse current: < 1 nA typ.

2.Applications

- Low and High-Speed CAN
- Fault Tolerant CAN
- Industrial control networks
- 12/24 V DC power supply lines

3.Pinning Information



SOT-23



4. Absolute Maximum Ratings $T_A = 25^\circ\text{C}$

Parameter	Symbol	Value	Units
ESD contact discharge ¹⁾	V_{ESD}	30	kV
Peak pulse current ($t_p=8/20\mu\text{s}$) ²⁾	I_{PP}	5	A
Peak pulse power ($t_p=8/20\mu\text{s}$) ²⁾	P_{PK}	230	W
Junction temperature range	T_{OP}	-55 to 150	$^\circ\text{C}$
Storage temperature	T_{STG}	-65 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	V_{RWM}				24	V
Breakdown Voltage	V_{BR}	$I_{(\text{BR})}=1\text{mA}$	26		32	V
Reverse Current	I_{R}	$V_{\text{R}}=24\text{V}$		<1	10	nA
Clamping Voltage	V_{CL}	$I_{\text{PP}}=1\text{A}$, $t_p=8/20\mu\text{s}$) ²⁾		30	34	V
		$I_{\text{PP}}=5\text{A}$, $t_p=8/20\mu\text{s}$) ²⁾		36	41	V
Line capacitance ³⁾	C_{T}	$V_{\text{R}}=0\text{V}$, $f=1\text{MHz}$ (pins 1 to 2, pin 3 n.c.)		24	28	pF
		$V_{\text{R}}=0\text{V}$, $f=1\text{MHz}$ (pins 1 or 2 to 3)		48	52	pF

Notes:

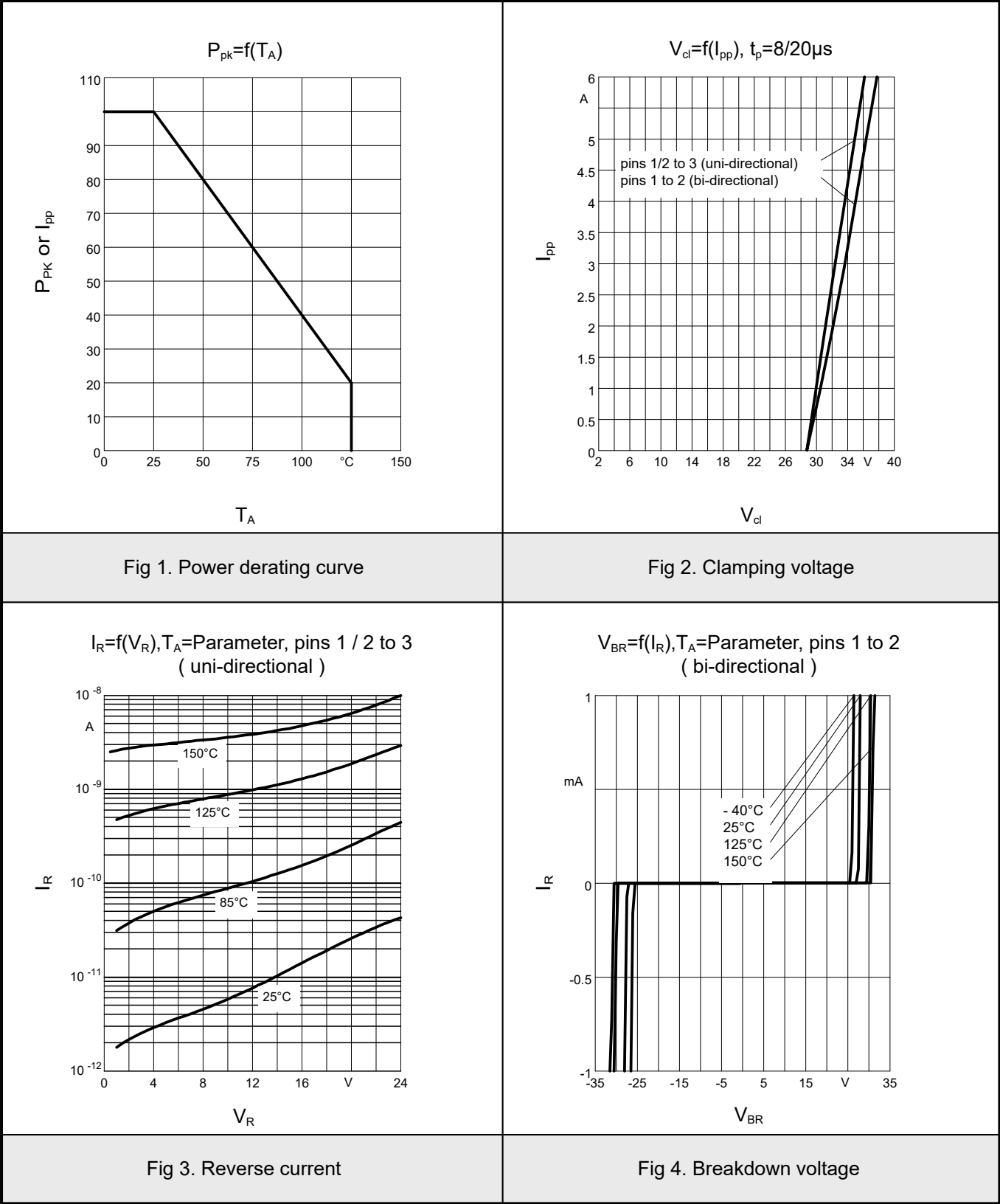
¹⁾ VESD according to IEC61000-4-2. Device stressed with 10 positive / negative ESD pulses.

²⁾ I_{pp} according to IEC61000-4-5. Non-repetitive current pulse.

³⁾ Total capacitance line to ground (per line).



6.1Typical Characteristic





6.2Typical Characteristic

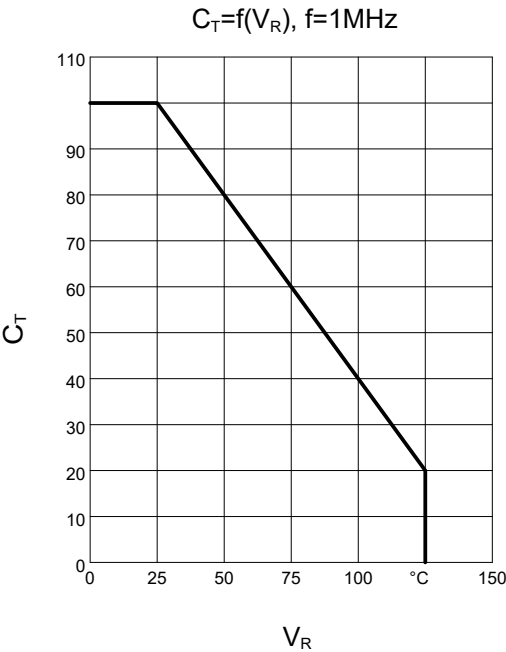
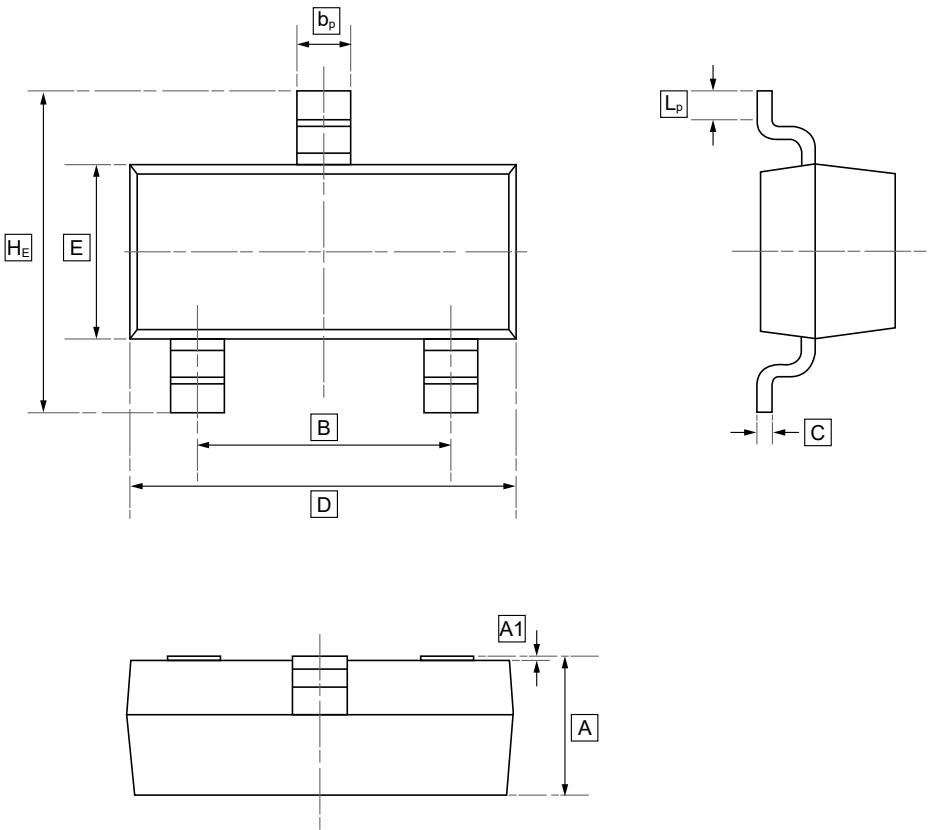


Fig 5. Line capacitance



7.SOT-23 Package Outline Dimensions

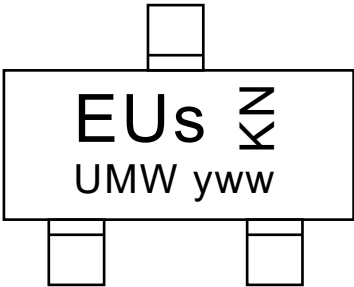


DIMENSIONS (mm are the original dimensions)

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



8.Ordering Information



yww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW ESD24VS2UE6327	SOT-23	3000	Tape and reel



9.Disclaimer

UMW reserves the right to make changes to all products, specifications. Customers should obtain the latest version of product documentation and verify the completeness and currency of the information before placing an order.

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