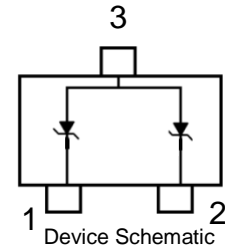


Silicon TVS diodes

- 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.



Applications

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

Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Unit
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
Operating temperature range	T_{op}	-55...150	°C
Storage temperature	T_{stg}	-65...150	

Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

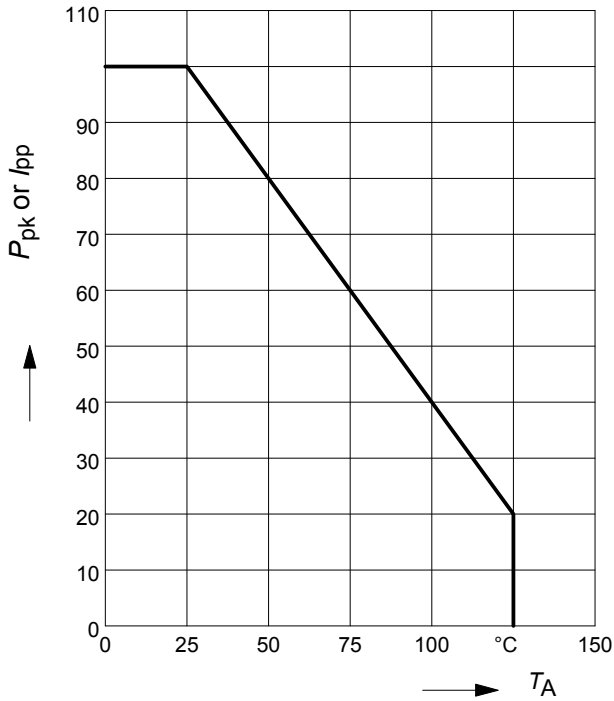
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse working voltage	V_{RWM}			24	V
Breakdown voltage $I_{(\text{BR})} = 1 \text{ mA}$	$V_{(\text{BR})}$	26		32	
Reverse current $V_R = 24 \text{ V}$	I_R		<1	10	nA
Clamping voltage $I_{\text{PP}} = 1 \text{ A}, t_p = 8 / 20 \mu\text{s}$) ²⁾ $I_{\text{PP}} = 5 \text{ A}, t_p = 8 / 20 \mu\text{s}$) ²⁾	V_{CL}		30 36	34 41	V
Line capacitance ³⁾ $V_R = 0 \text{ V}, f = 1 \text{ MHz}, (\text{pins } 1 \text{ to } 2, \text{ pin } 3 \text{ n.c.})$ $V_R = 0 \text{ V}, f = 1 \text{ MHz}, (\text{pins } 1 \text{ or } 2 \text{ to } 3)$	C_T		24 48	28 52	

¹⁾ V_{ESD} 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.

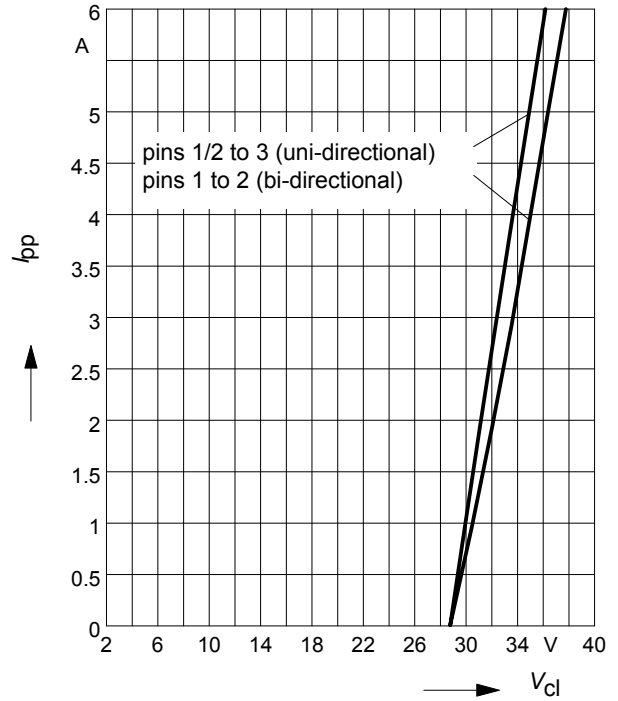
³⁾Total capacitance line to ground (per line)

Power derating curve $P_{pk} = f(T_A)$



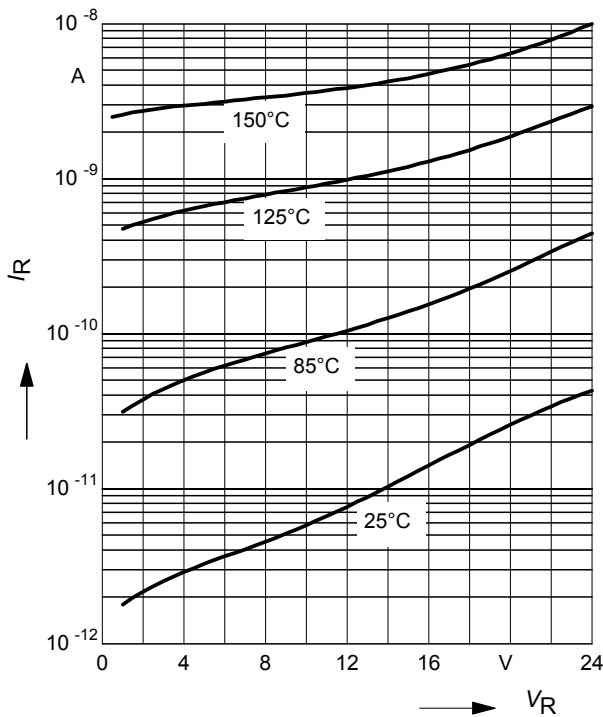
Clamping voltage, $V_{cl} = f(I_{pp})$

$t_p = 8 / 20 \mu s$



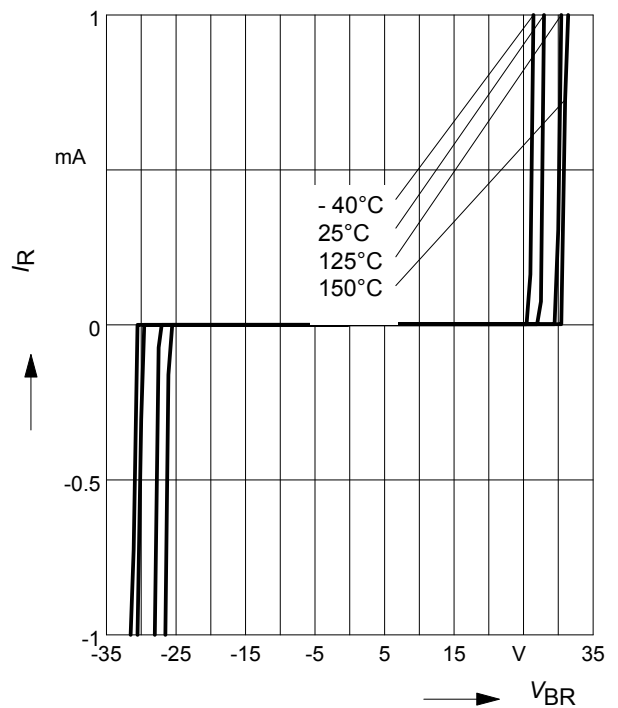
Reverse current $I_R = f(V_R)$

$T_A =$ Parameter, pins 1 / 2 to 3
(uni-directional)



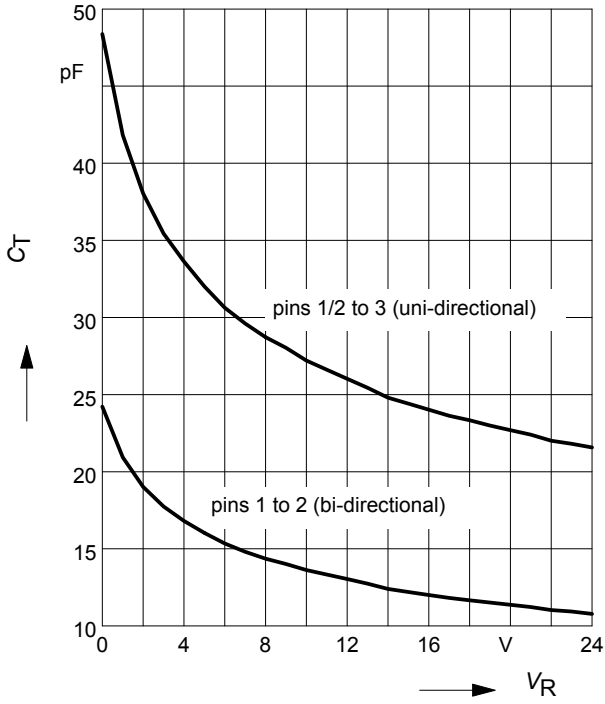
Breakdown voltage $V_{BR} = f(I_R)$

$T_A =$ Parameter, pins 1 to 2
(bi-directional)

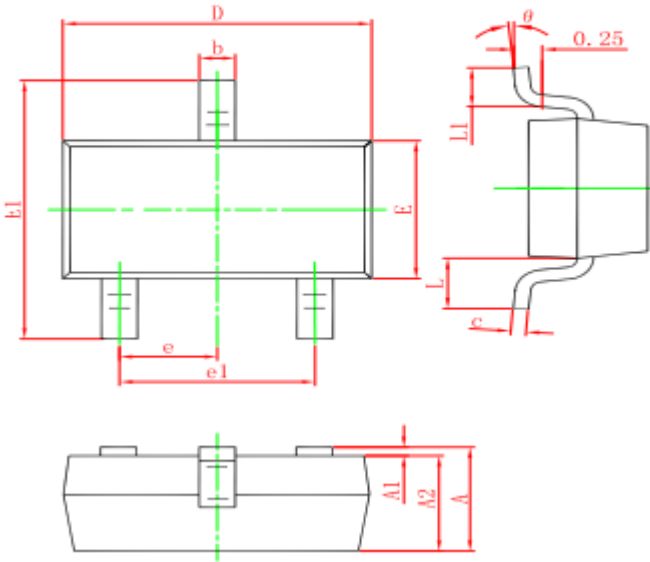


Line capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Marking



Ordering information

Order code	Package	Baseqty	Deliverymode
UMW ESD24VS2UE6327	SOT-23	3000	Tape and reel

单击下面可查看定价，库存，交付和生命周期等信息

[>>UMW\(友台半导体\)](#)