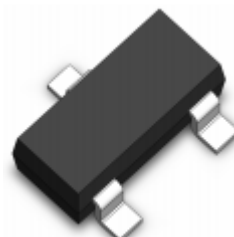


Transient Voltage Suppressors Array for ESD Protection

Features

- Ultra low leakage: nA level
- Operating voltage: 7V or 12V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 22A (8/20 μs)
- RoHS Compliant

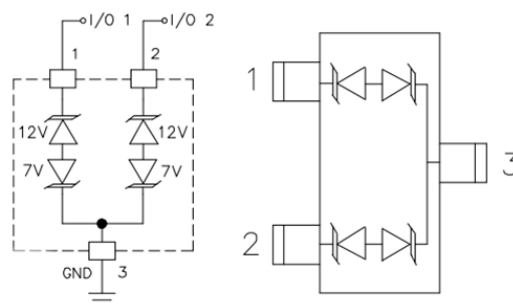
Dimensions SOT-23



Applications

- Protection of RS-485 transceivers with extended common-mode range
- Security systems
- Automatic Teller Machines
- HFC systems
- Networks

Pin Configuration



Mechanical Characteristics

- Package: SOT-23
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000 pcs
- Reel Size: 7 inch
- Device Marking: 712

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

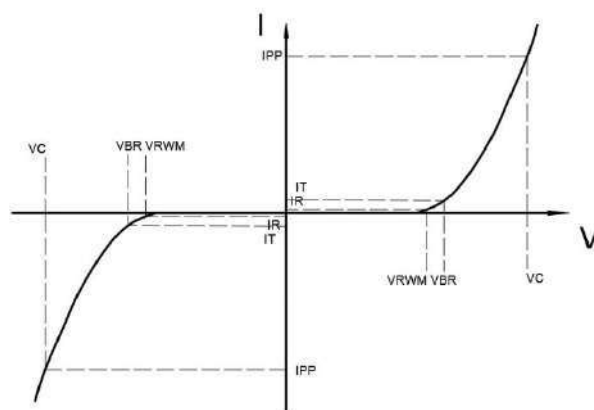
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	400	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	kV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

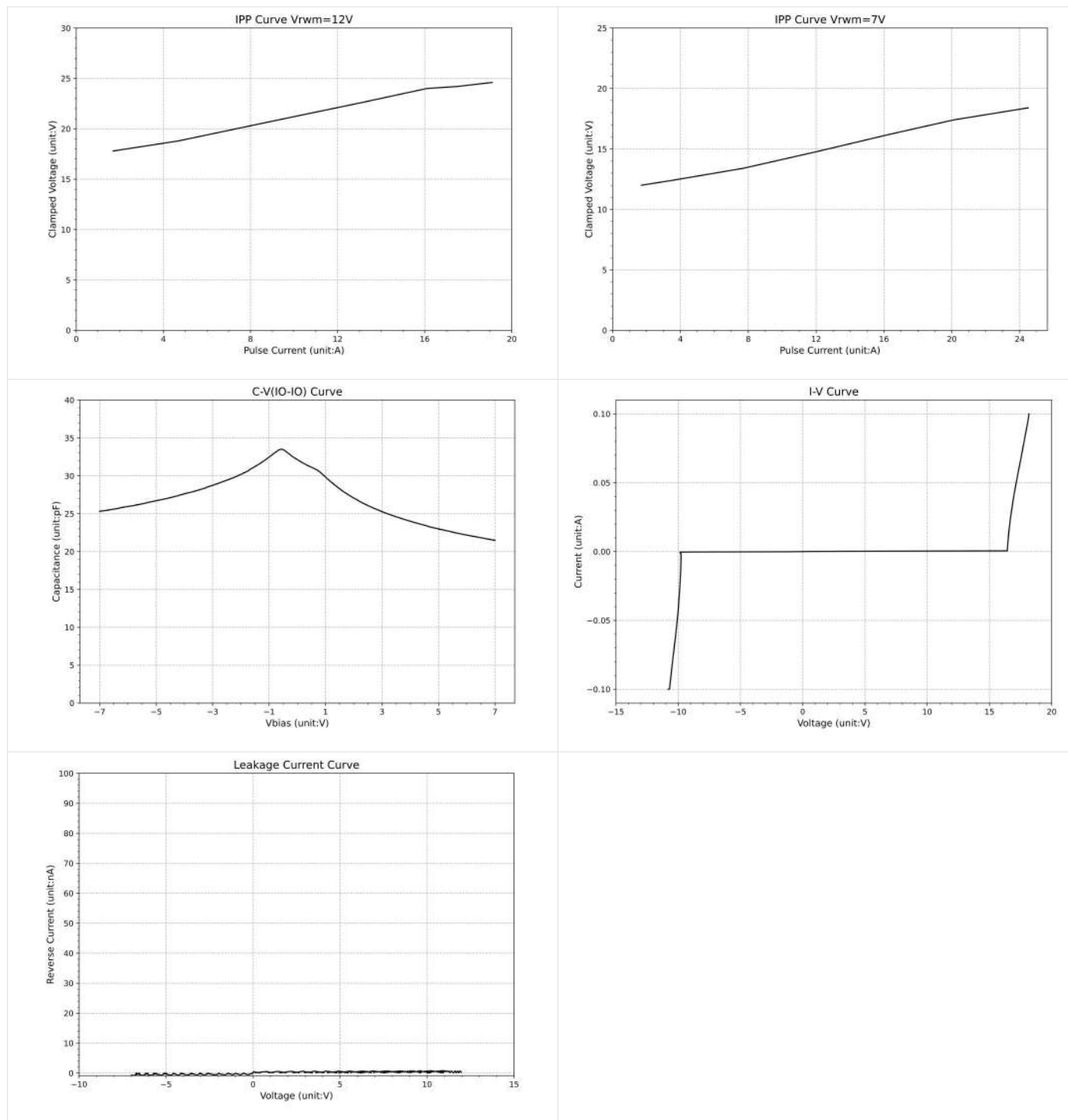
Parameters	Symbol	conditions	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	V_{RWM}	Pin1 or Pin2 to Pin3			12.0	V
		Pin3 to Pin1 or Pin2			7.0	
Reverse Breakdown Voltage	V_{BR}	Pin1 or Pin2 to Pin3; $I_R=1\text{mA}$	13.3	16.3		V
		Pin3 to Pin 1or Pin2; $I_R=1\text{mA}$	7.5	9.8		
Reverse Leakage Current	I_R	Pin1 or Pin2 to Pin3; $V_{RWM}=12\text{V}$			1.0	μA
		Pin3 to Pin1or Pin2; $V_{RWM}=7\text{V}$			1.0	
Clamping Voltage	V_{CL}	Pin1 or Pin2 to Pin3; $I_{PP}=17\text{A}$		24.0		V
		Pin3 to Pin1 or Pin2; $I_{PP}=22\text{A}$		18.0		
Junction capacitance	C_O	I/O-GDN, $V_R=0\text{V}$; $f=1\text{MHz}$		34		pF

Electrical Parameters (TA=25°C unless otherwise specified)

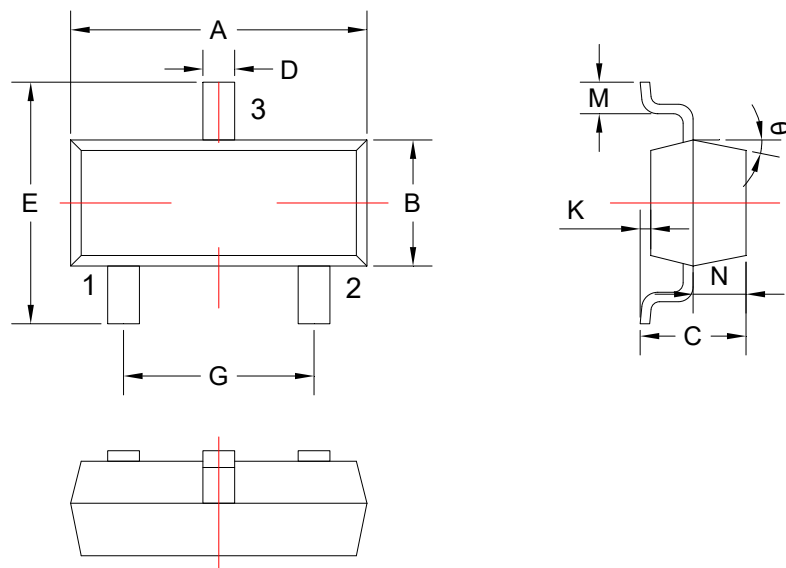
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}



Typical Characteristics

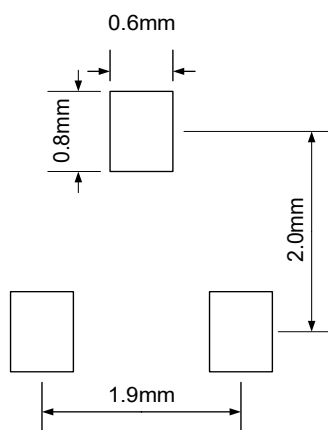


SOT-23 Package Outline & Dimensions



COMMON DIMENSIONS CUNITS MEASURE=MILLIMETER					
SYMBOL	MIN	MAX	SYMBOL	MIN	MAX
A	2.85	3.04	G	1.80	2.00
B	1.20	1.40	K	0	0.10
C	0.90	1.10	M	0.20	-
D	0.40	0.50	N	0.50	0.70
E	2.25	2.55	θ	5°	9°

Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only.