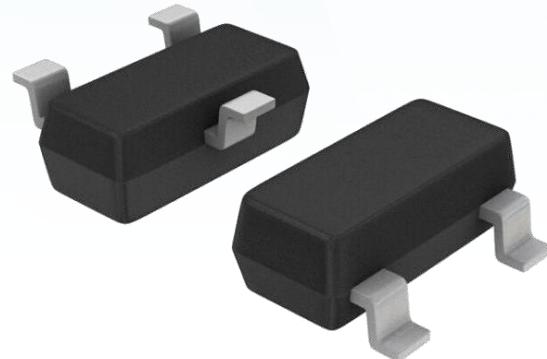


ESD Protection Diode Array

»Features

- 300 Watts peak pulse power ($t_p = 8/20\mu s$)
- Bidirectional and unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j = 60 \text{ pF typ.}$)
- Protection two data lines
- IEC 61000-4-2 $\pm 30\text{kV}$ contact $\pm 30\text{kV}$ air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 12A(8/20 μs)



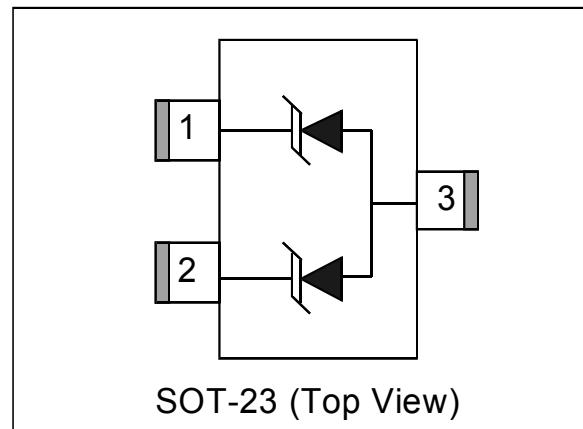
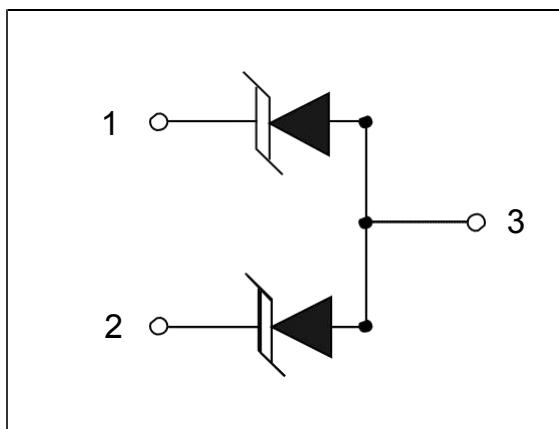
»Applications

- Dataline
- Automatic Teller Machines
- Net works
- Power line

»Mechanical Data

- SOT23-3L package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

»Schematic & PIN Configuration



»Absolute Maximum Rating

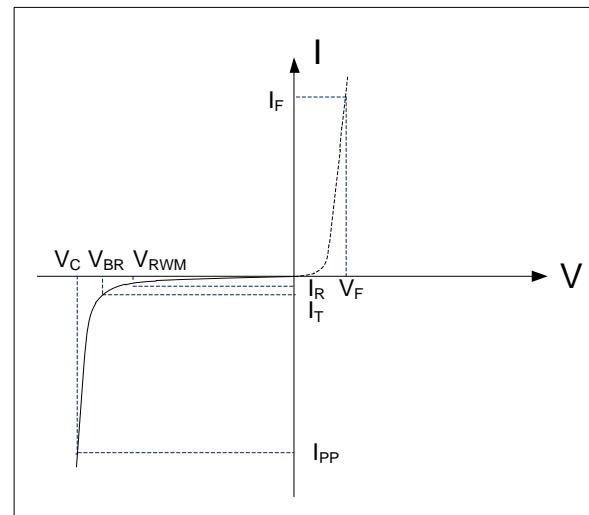
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	300	Watts
Peak Pulse Current ($t_p=8/20\mu s$)(note1)	I_{PP}	12	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

»Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-OffVoltage	V_{RWM}				12	V
Reverse BreakdownVoltage	V_{BR}	$I_T=1mA$	13.3	15	17	V
Reverse LeakageCurrent	I_R	$V_{RWM}=12V, T=25^\circ C$		0.5	1	µA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			10	A
Clamping Voltage	V_C	$I_{PP}=12A, t_p=8/20\mu s$			30	V
JunctionCapacitance	C_j	$V_R = 0V, f = 1MHz$ (Pin1 、 Pin2 to Pin3)		60	65	pF

»Electrical Parameters (TA = 25°C unless otherwise noted)

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



Note: 8/20µs pulse waveform.

»Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

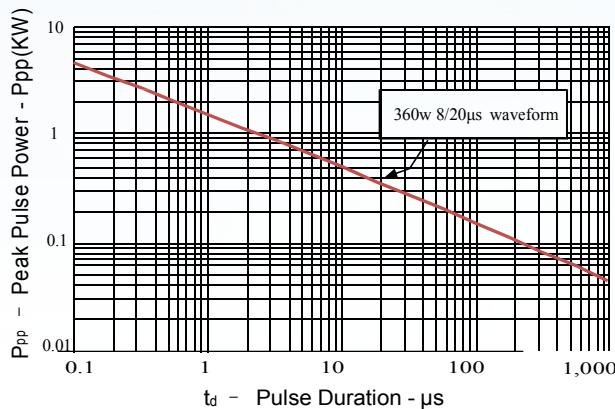


Figure 2: Power Derating Curve

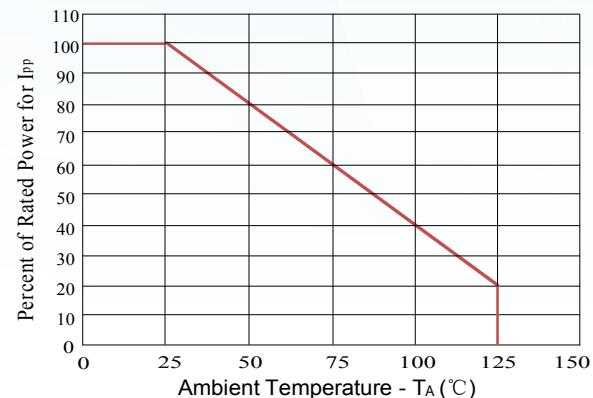


Figure 3: Pulse Waveform

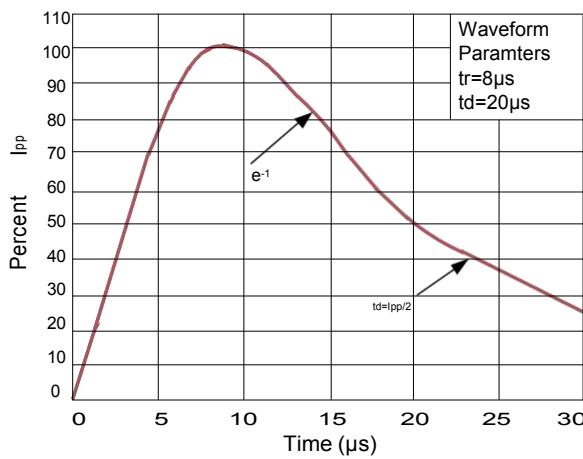


Figure 4: Clamping Voltage vs.Ipp

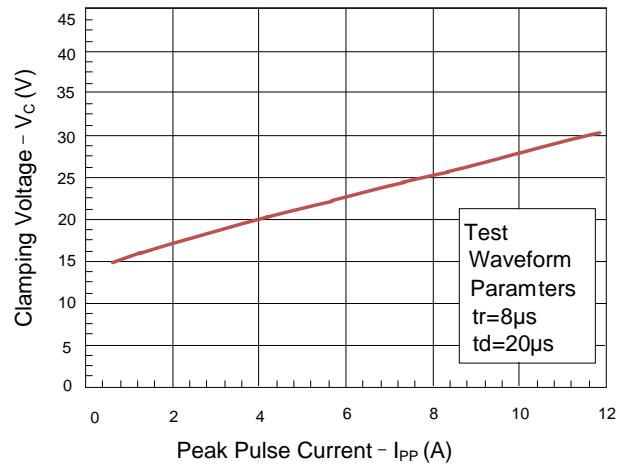
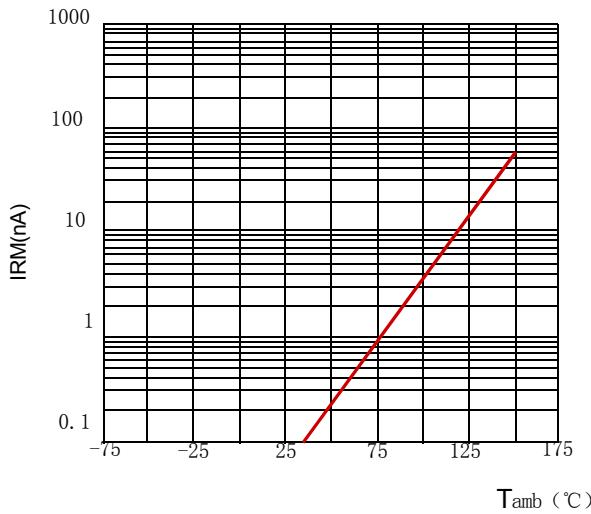
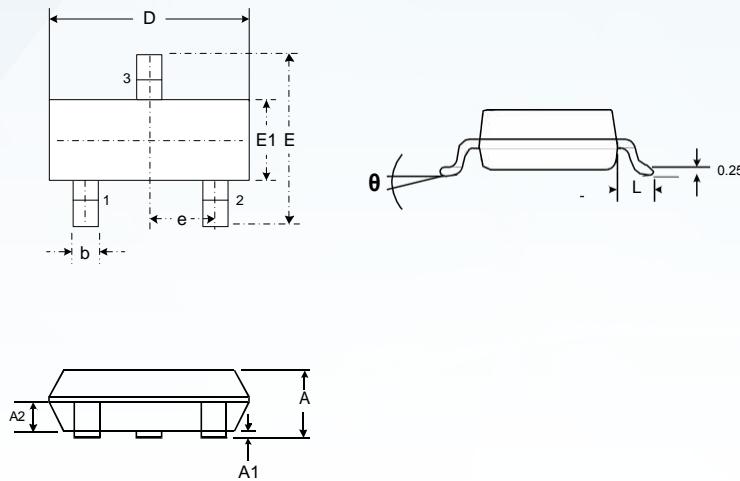


Figure 5: Peak Pulse Power Vs Junction Temperature



»Outline Drawing – SOT23-3L



SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.89	1.13	0.035	0.044
A1	0.015	0.11	0.0006	0.0043
A2	0.60	0.70	0.0236	0.0275
D	2.72	3.12	0.1070	0.1228
E	2.60	3.00	0.1024	0.118
E1	1.40	1.80	0.0551	0.0709
e	0.95 BSC		0.0374 BSC	
L	0.30	0.60	0.0118	0.0236
θ	0	8	0	8

»Ordering information

Order code	Package	Base qty	Delivery mode
ESDA14V2L	SOT23-3L	3k	Tape and reel

Disclaimer

EVVOSEMI ("EVVO") reserves the right to make corrections, enhancements, improvements, and other changes to its products and services at any time, and to discontinue any product or service without notice.

EVVO warrants the performance of its hardware products to the specifications applicable at the time of sale in accordance with its standard warranty. Testing and other quality control techniques are used as deemed necessary by EVVO to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

Customers should obtain and confirm the latest product information and specifications before final design, purchase, or use. EVVO makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does EVVO assume any liability for application assistance or customer product design. EVVO does not warrant or accept any liability for products that are purchased or used for any unintended or unauthorized application.

EVVO products are not authorized for use as critical components in life support devices or systems without the express written approval of EVVOSEMI.

The EVVO logo and EVVOSEMI are trademarks of EVVOSEMI or its subsidiaries in relevant jurisdictions. EVVO reserves the right to make changes without further notice to any products herein.