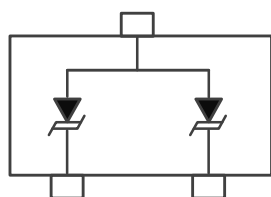


Surface Mount Transient Voltage Suppressor Diode

Features

- ✧ Uni-directional ESD protection for two lines
- ✧ Solid-state silicon-avalanche technology
- ✧ Working Voltage: 24V
- ✧ Peak Power up to 360 Watts @ 8 x 20 μ s Pulse
- ✧ Low Leakage current
- ✧ IEC 61000-4-2 (ESD) $\pm$ 30kV (air), $\pm$ 30kV (contact)



Circuit Diagram

Applications

- ✧ Industrial control networks
- ✧ Smart distribution systems
- ✧ DeviceNet
- ✧ Factory automation systems

Mechanical Data

- ✧ UL Flame Rating : UL94V-0
- ✧ Reel Size : 7 inch
- ✧ RoHS/WEEE Compliant



SOT23

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

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	360	Watts
Peak Pulse Current ($t_p = 8/20\mu\text{s}$) (note1)	I_{pp}	8	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)	$^\circ\text{C}$
Junction Temperature	T_J	-55 to + 125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to + 150	$^\circ\text{C}$

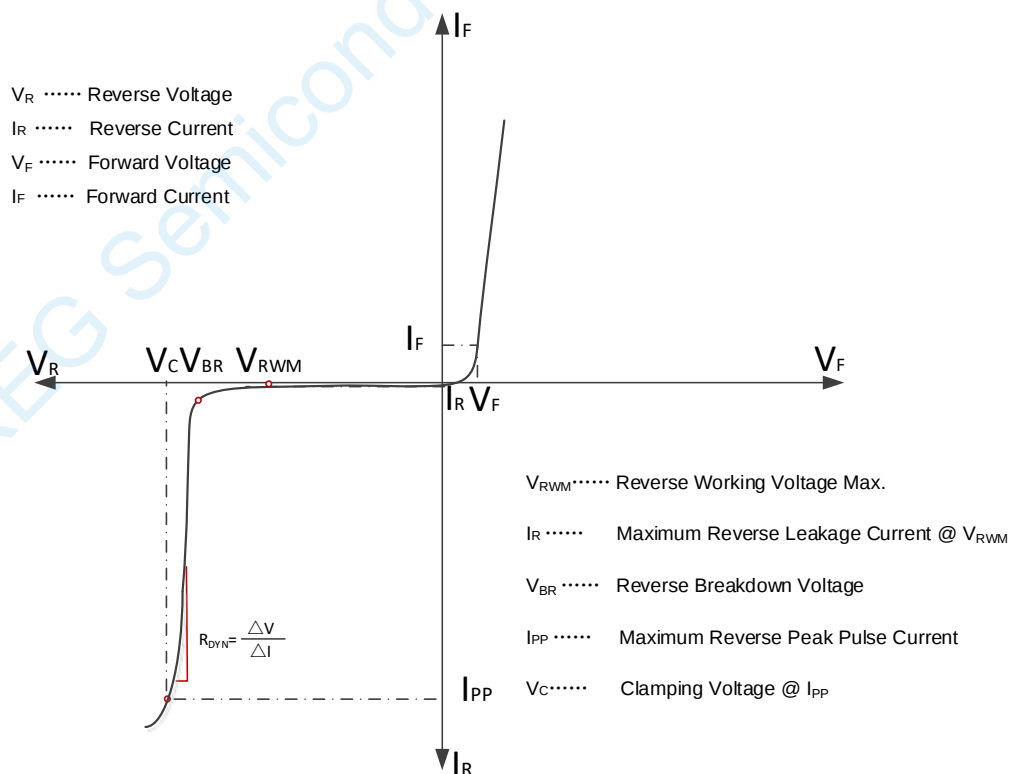
Electrical Characteristics at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				24	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	26.0			V
Reverse Leakage Current	I_R	$V_{RWM}=24\text{V}$, $T=25\text{ }^{\circ}\text{C}$			1	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$			8	A
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$		27		V
Clamping Voltage	V_C	$I_{PP}=8\text{A}$, $t_p=8/20\mu\text{s}$		40	45	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		45	60	pF

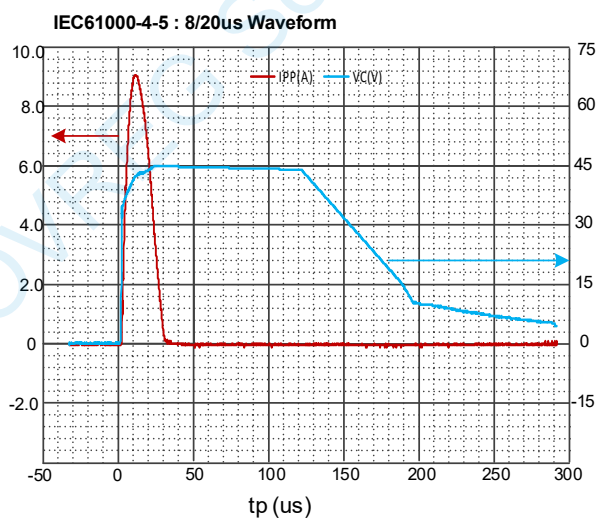
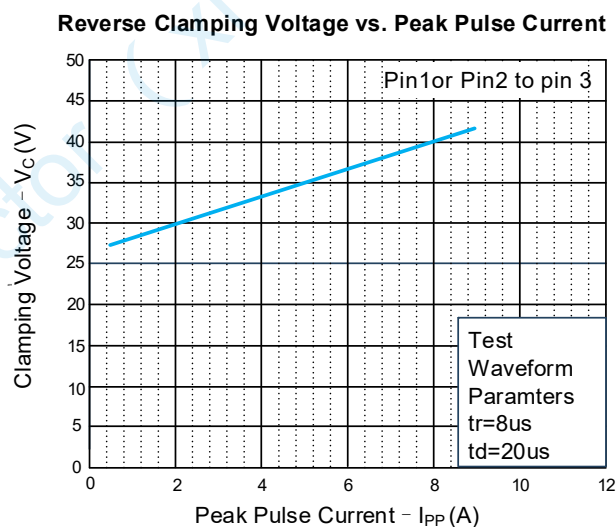
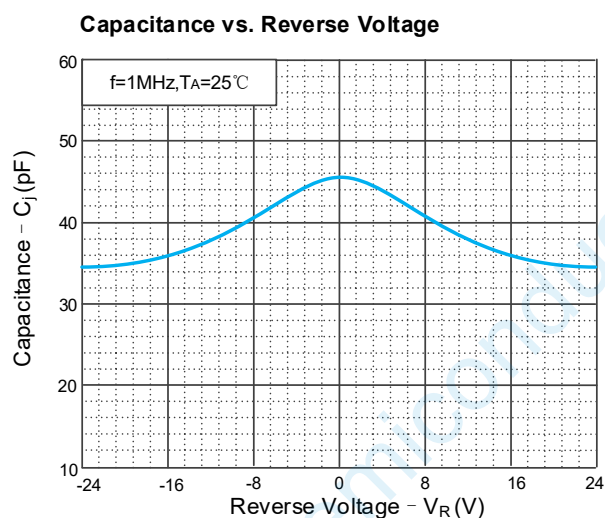
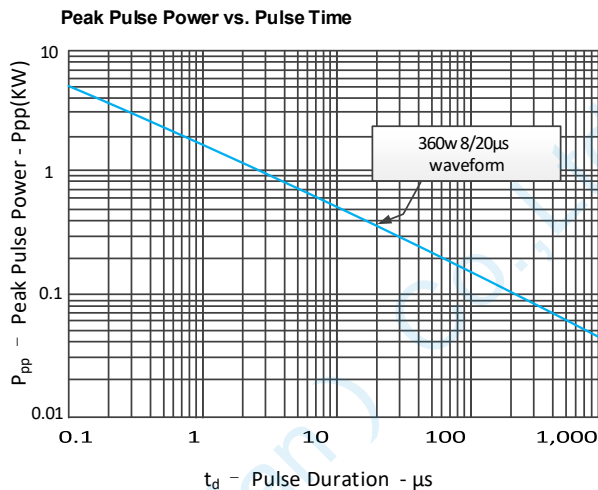
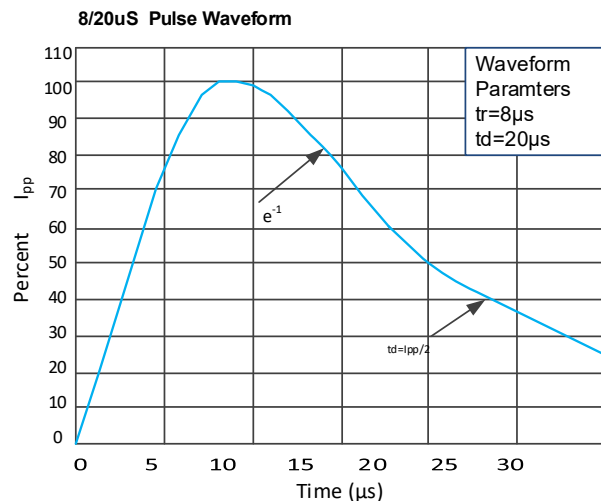
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

1. All parameters specified at $T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted.
2. These parameters are guaranteed by design and characterization.
3. Standard IEC 61000-4-2 with $C_{Discharge} = 150\text{ pF}$, $R_{Discharge} = 330\text{ }\Omega$

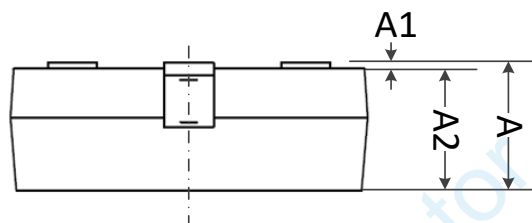
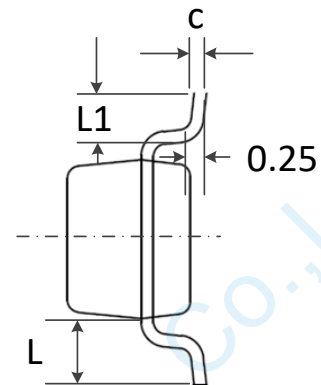
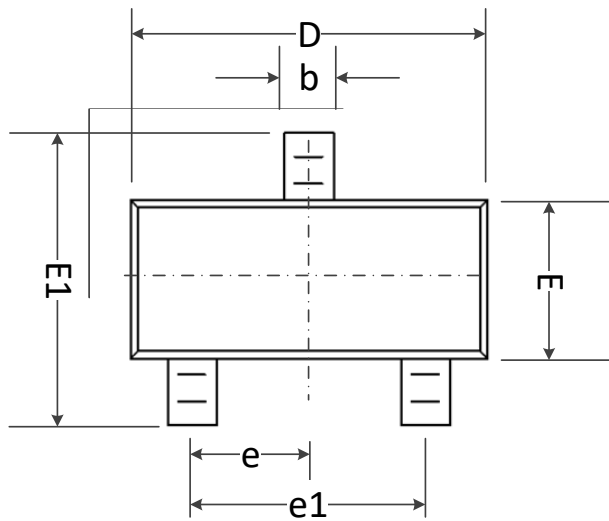
Electrical Parameters at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified



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

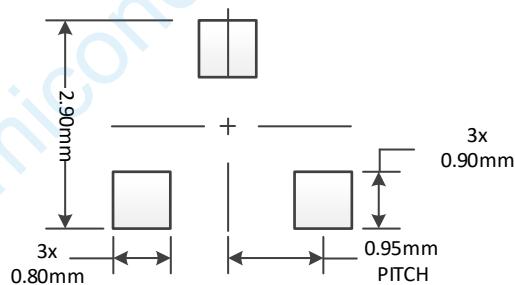


Package information



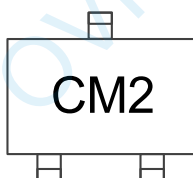
COMMON DIMENSION (MM)			
PKG	SOT23		
REF.	MIN.	NOM.	MAX.
A	0.90	-	1.15
A1	0.00	-	0.10
A2	0.90	1.00	1.05
b	0.30	-	0.50
c	0.08	-	0.15
D	2.80	2.90	3.00
E	1.20	1.30	1.40
E1	2.25	2.40	2.55
e	0.95TYP		
e1	1.80	1.90	2.00
L	0.55REF		
L1	0.30	0.45	0.50

Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVE6125M1	GREEN	T/R	7 inch	3k/reel	10reel= 30k/box	4boxes=120k/carton