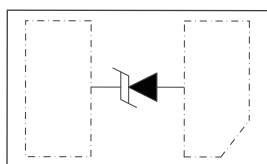


Surface Mount Transient Voltage Suppressor Diode

Features

- ✧ Uni-directional ESD protection of one line
- ✧ Solid-state silicon-avalanche technology
- ✧ Working Voltage: 6.3V
- ✧ Peak Power up to 420 Watts @ 8 x 20 μ s Pulse
- ✧ Low Leakage current
- ✧ IEC 61000-4-2 (ESD) $\pm$ 30kV (air), $\pm$ 30kV (contact)
- ✧ IEC 61000-4-4 (EFT) 40A (5/50ns)



Circuit Diagram

Applications

- ✧ Cellular Handsets & Accessories
- ✧ Portable devices
- ✧ Digital cameras
- ✧ Power supplies

Mechanical Data

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



DFN1006

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

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	420	Watts
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{pp}	30	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	$^{\circ}\text{C}$

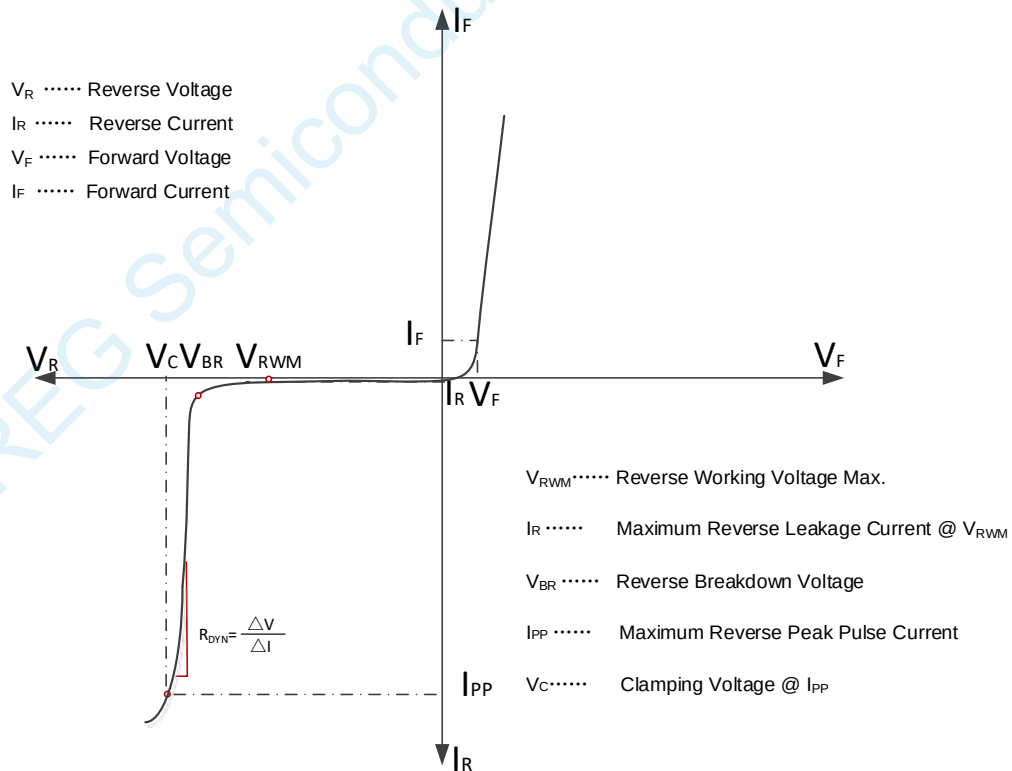
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				6.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6.5		9.0	V
Reverse Leakage Current	I_R	$V_{RWM}=6.3\text{V}$, $T=25^\circ\text{C}$			500	nA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$			30	A
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$		7	9	V
Clamping Voltage	V_C	$I_{PP}=30\text{A}$, $t_p=8/20\mu\text{s}$		12	14	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		220	250	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.

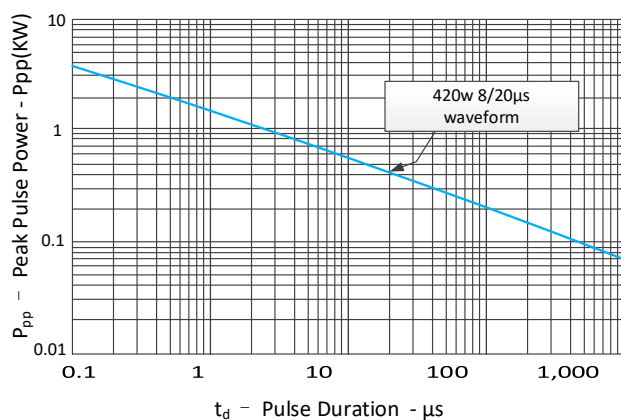
1. All parameters specified at $T_A = 25^\circ\text{C}$ unless otherwise noted.
2. These parameters are guaranteed by design and characterization.
3. Standard IEC 61000-4-2 with $C_{\text{Discharge}} = 150\text{ pF}$, $R_{\text{Discharge}} = 330\ \Omega$

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

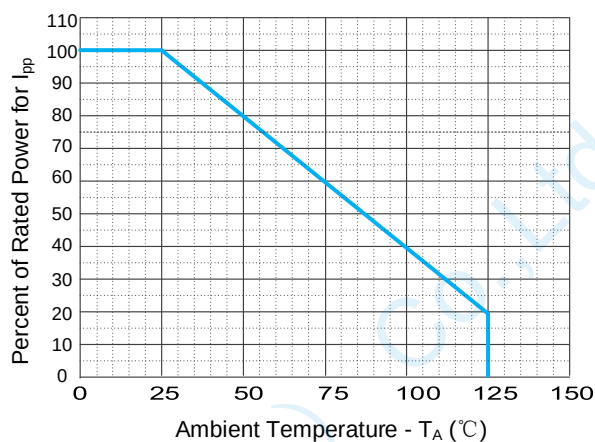


Typical Characteristics at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

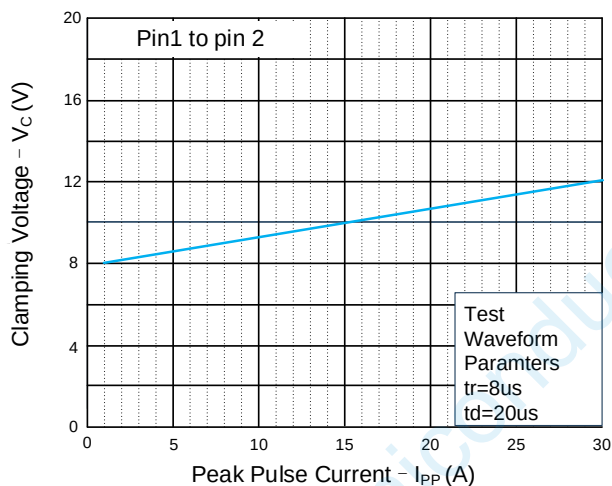
Peak Pulse Power vs. Pulse Time



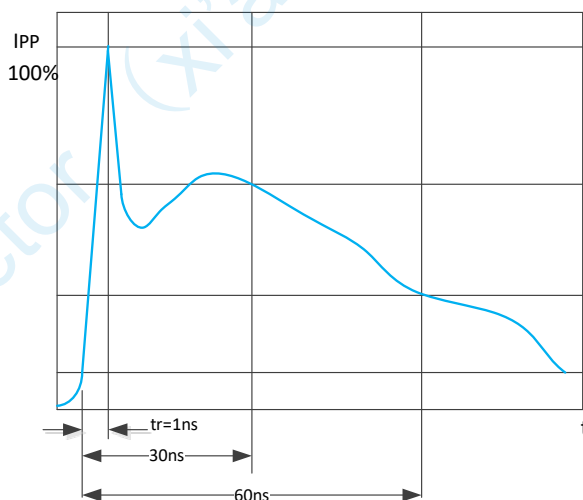
Power derating vs. Ambient temperature



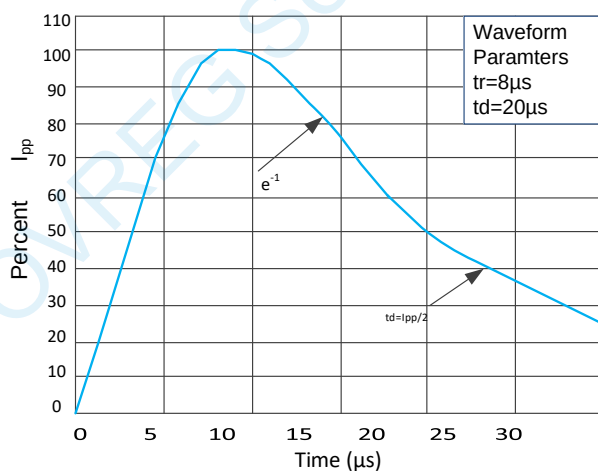
Forward Clamping Voltage vs. peak PulseCurrent



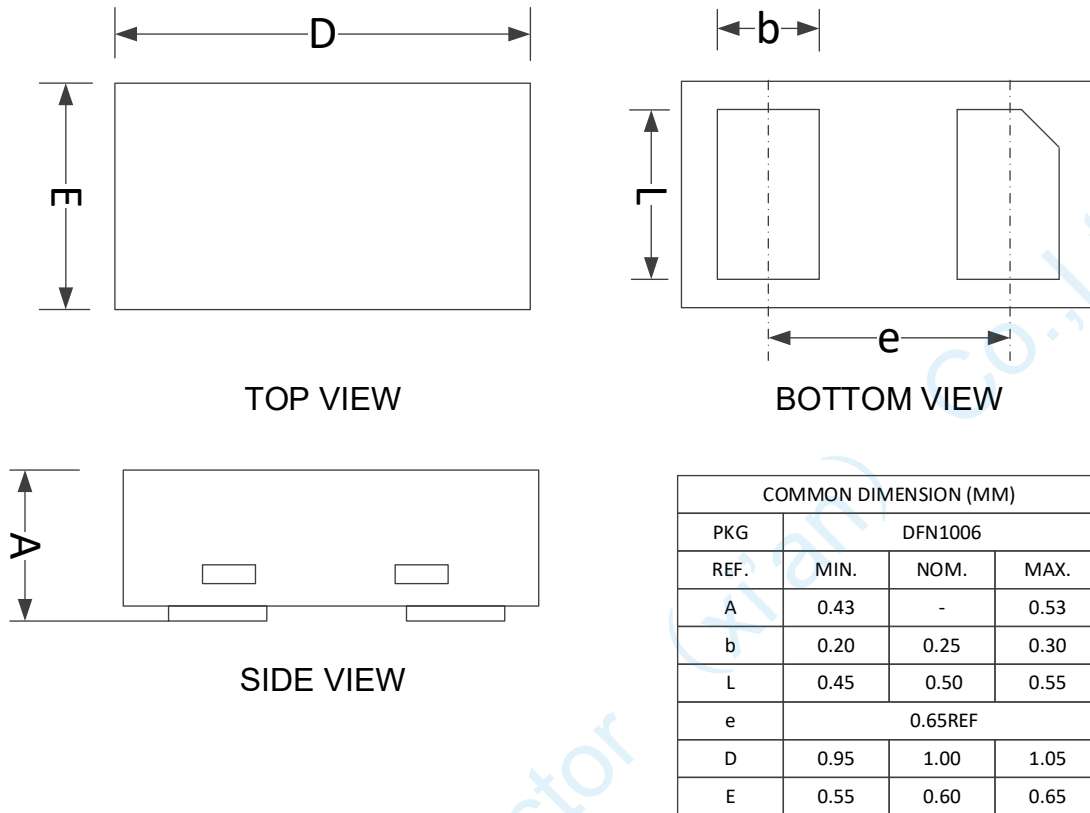
IEC61000-4-2 +8kV Pulse Waveform



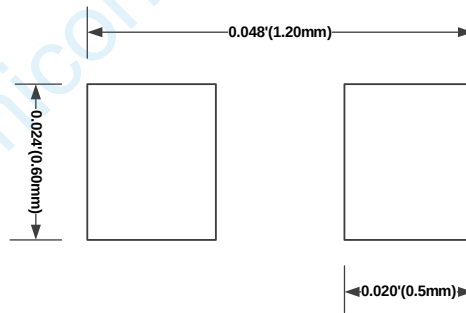
8/20 μs Pulse Waveform



Package Information



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
OVE33E32S1MG	GREEN	T/R	7 inch	12k/reel	10reel= 120k/box	4boxes=480k/carton