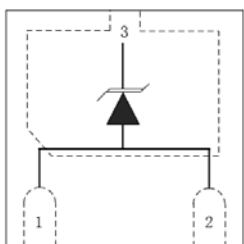


Surface Mount Transient Voltage Suppressor Diode

Features

- ✧ Surge protection of one power line
- ✧ Solid-state silicon-avalanche technology
- ✧ Working Voltage: 24.0V
- ✧ Peak Power up to 5040 Watts @ 8 x 20μs Pulse
- ✧ Low Leakage current
- ✧ Low clamping voltage
- ✧ IEC 61000-4-2 (ESD) ±30kV (air), ±30kV (contact)



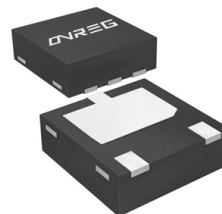
Circuit Diagram

Applications

- ✧ Cellular Handsets & Accessories
- ✧ Portable devices
- ✧ Power line

Mechanical Data

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



DFN2020-3L

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}	5040	Watts
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{pp}	120	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	$^{\circ}\text{C}$

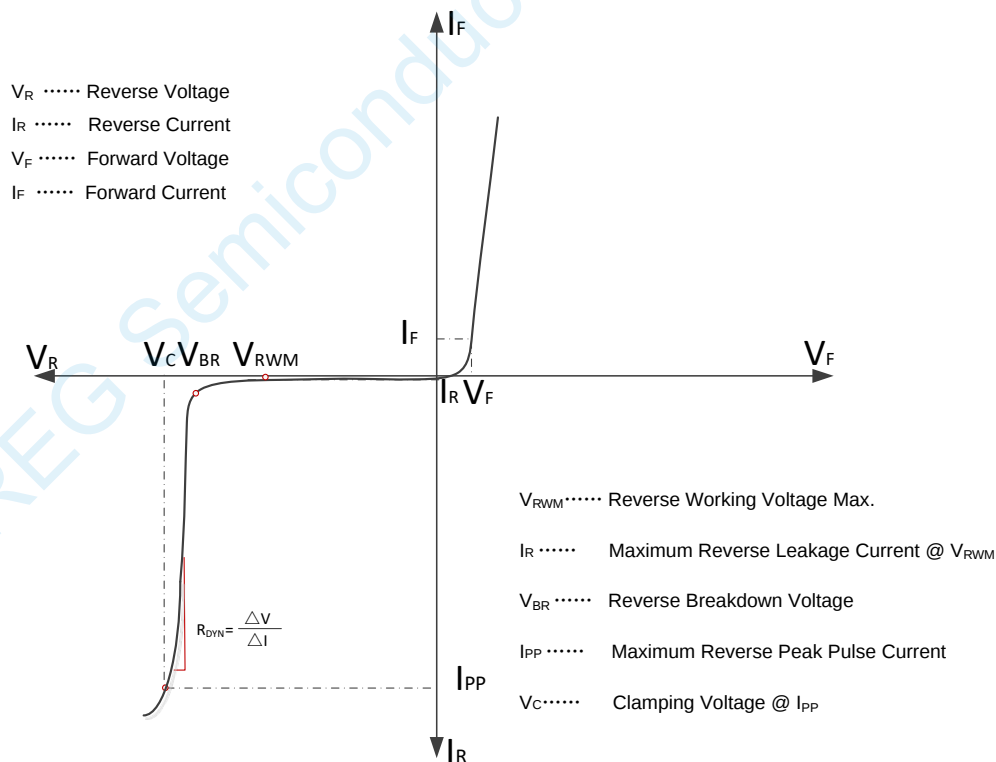
Electrical Characteristics at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				24.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	26.5			V
Reverse Leakage Current	I_R	$V_{RWM}=24.0\text{V}$, $T=25\text{ }^{\circ}\text{C}$			1	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$			120	A
Clamping Voltage	V_C	$I_{PP}=100\text{A}$, $t_p=8/20\mu\text{s}$ (pin3 to pin1 and pin2)		36	38	V
Clamping Voltage	V_C	$I_{PP}=120\text{A}$, $t_p=8/20\mu\text{s}$ (pin3 to pin1 and pin2)		39	42	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		700	900	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.

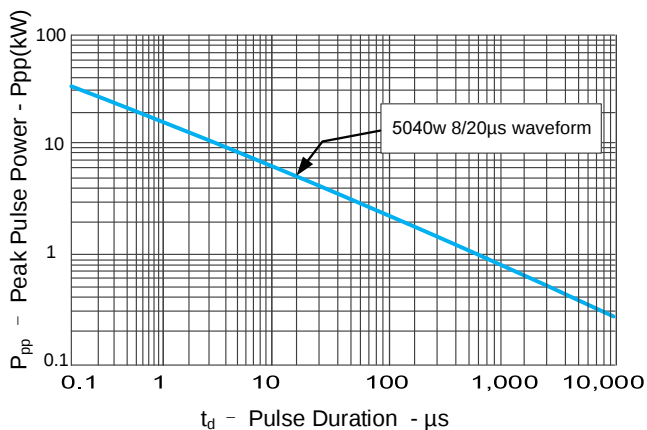
1. All parameters specified at $T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted.
2. These parameters are guaranteed by design and characterization.
3. Standard IEC 61000-4-2 with $C_{\text{Discharge}} = 150\text{ pF}$, $R_{\text{Discharge}} = 330\text{ }\Omega$

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

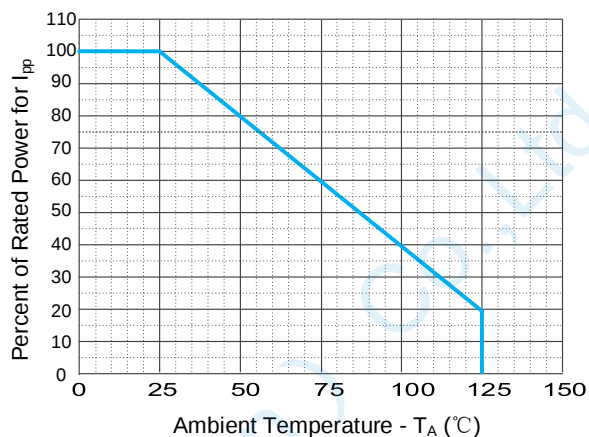


Typical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

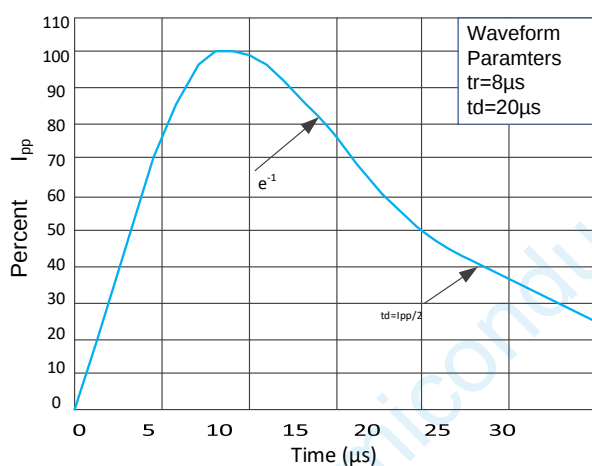
Non-repetitive Peak Pulse Power vs. Pulse Time



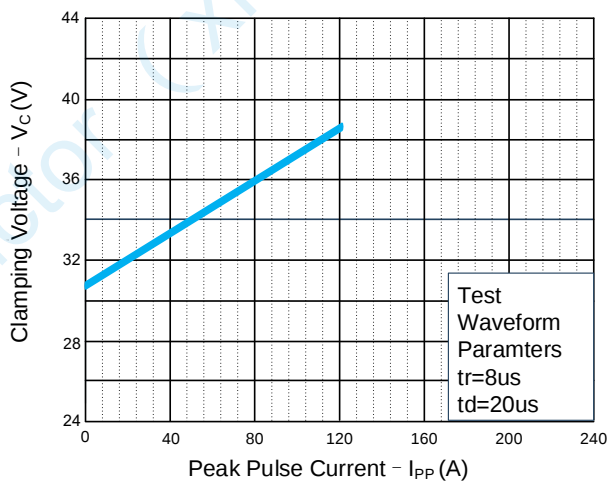
Power derating vs. Ambient temperature



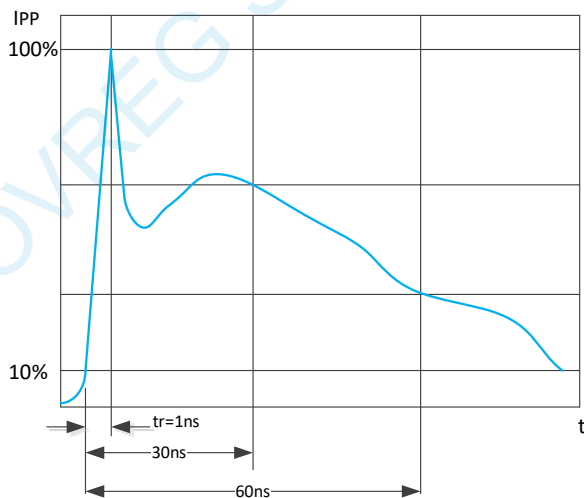
8/20 μs Pulse Waveform



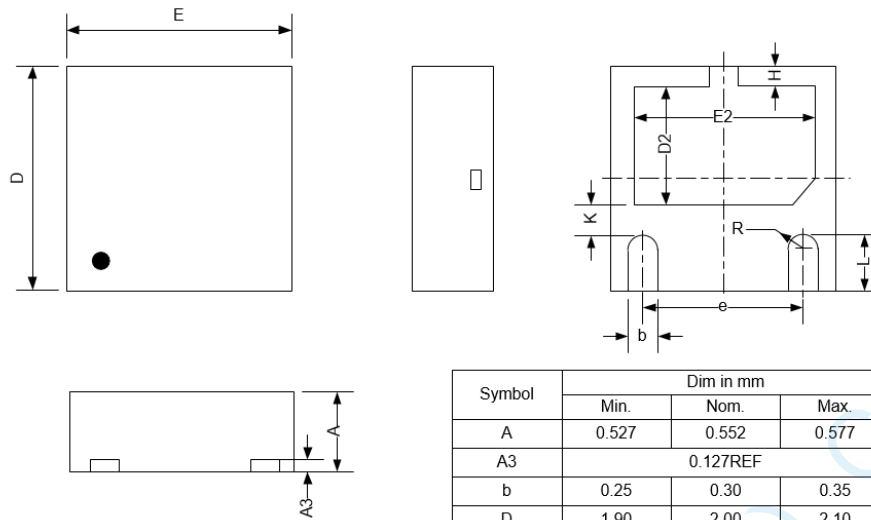
Reverse Clamping Voltage vs. Peak Pulse Current



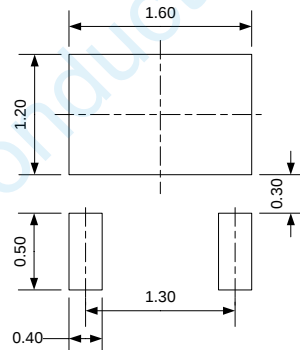
IEC61000-4-2 +8kV Pulse Waveform



Package Information

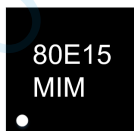


Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Ordering Information



Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVE80E15M1M	GREEN	T/R	7 inch	3k/reel	10reel= 30k/box	4boxes=120k/carton