

### Transient Voltage Suppressor

#### Features

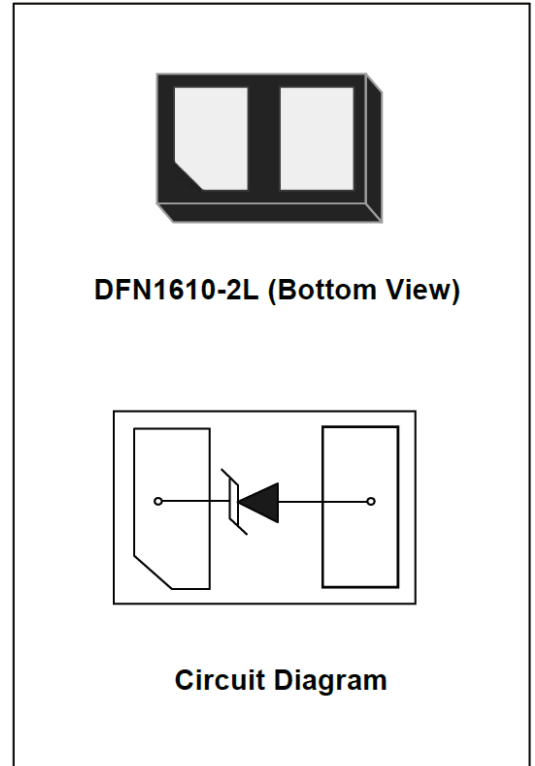
- IEC 61000-4-2 (ESD)  $\pm 25\text{kV}$  (air),  $\pm 25\text{kV}$  (contact)
- IEC 61000-4-5 (Lightning) 35A (8/20 $\mu\text{s}$ )
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- Unidirectional diode
- Operating voltage : 24V
- Low clamping voltage
- Low leakage current
- 2-pin leadless package

#### Applications

- Cell phone handsets and accessories
- Personal Digital Assistants (PDAs)
- Portable Instrumentation
- Power supply protection
- Other electronics equipments communication systems

#### Mechanical Characteristics

- Case: DFN1610-2L
- Moisture Sensitivity: Level 1 per J-STD-020
- RoHS Compliant

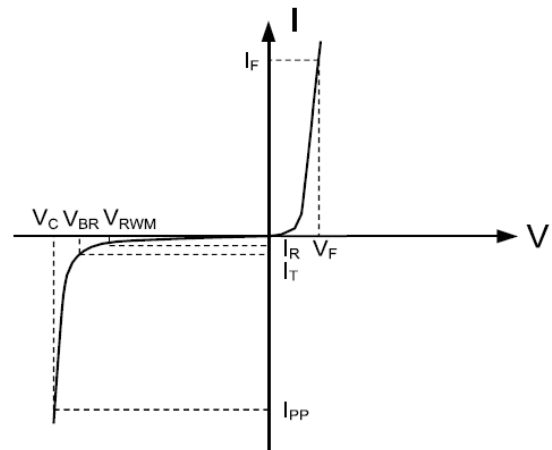


#### Absolute Maximum Ratings ( $T_A = 25^\circ\text{C}$ Unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ )	$P_{PP}$	1575	W
Peak Pulse Current ( $t_p = 8/20\mu\text{s}$ )	$I_{PP}$	35	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 25$	KV
ESD per IEC 61000-4-2 (Contact)		$\pm 25$	KV
Lead Soldering Temperature	$T_L$	260 (10 sec.)	$^\circ\text{C}$
Operating Temperature Range	$T_J$	-55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to + 150	$^\circ\text{C}$

### Electrical Parameters ( $T_A = 25^\circ\text{C}$ Unless otherwise noted)

Symbol	Parameter
$I_{PP}$	Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Reverse Standoff Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$



### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ Unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Reverse Standoff Voltage	$V_{RWM}$				24	V
Reverse breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$	25			V
Reverse leakage current	$I_R$	$V_{RWM} = 24\text{V}$			1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 10\text{A}, t_p = 8/20\mu\text{s}$		34		V
Clamping Voltage	$V_C$	$I_{PP} = 35\text{A}, t_p = 8/20\mu\text{s}$			45	V
Junction capacitance	$C_J$	$V_R = 0\text{V}, f = 1\text{MHz}$		200		pF

### Typical Performance Characteristics ( $T_A = 25^\circ\text{C}$ Unless otherwise noted)

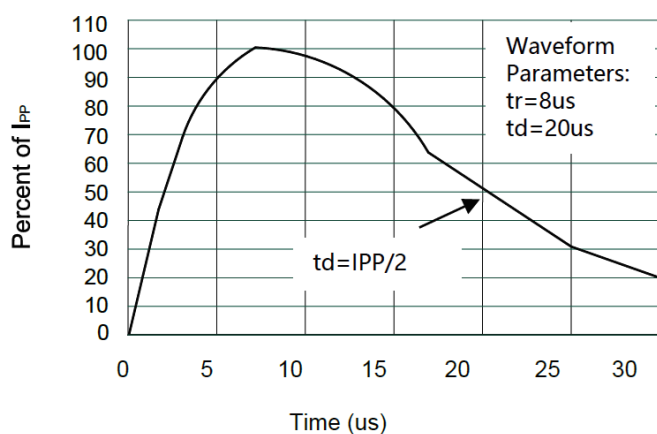


Fig 1. 8 X 20µs Pulse Waveform

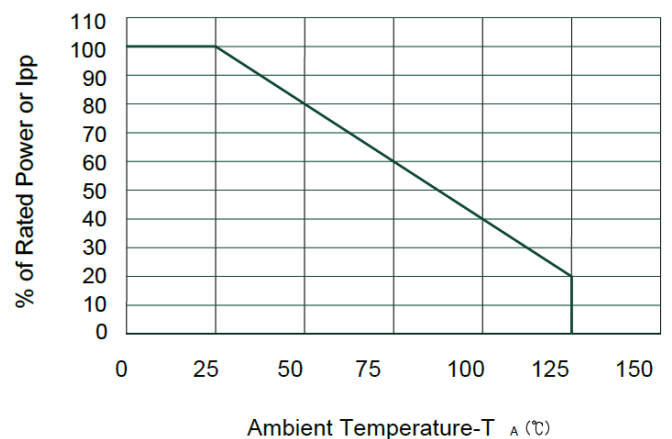
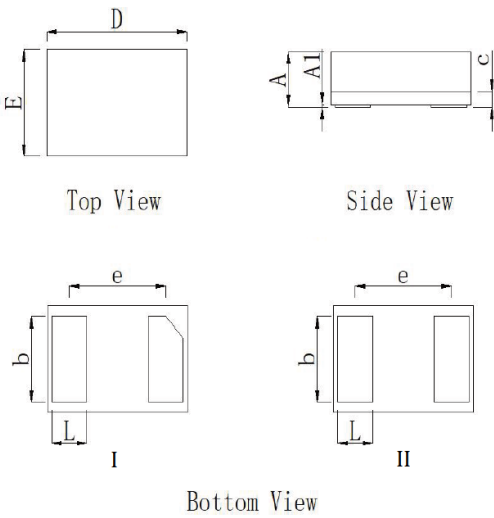
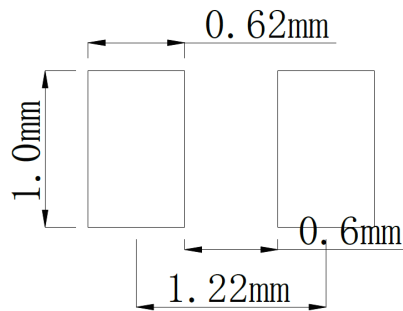


Fig 2. Power Derating Curve

### Mechanical Data

Symbol	Dimensions in millimeters		
	Min	Max	
A	0.45	0.55	
A1	0.00	0.05	
b	0.75	0.95	
c	0.10	0.20	
D	1.55	1.65	
e	1.10 BSC		
E	0.95	1.05	
L	0.35	0.45	

### Recommended Pad outline



### Ordering information

Part Number	Marking code	Package	Base qty	Reel Size	Delivery mode
			(pcs)	(inch)	
SW24P1UDA	24P	DFN1610-2L	3,000	7	Tape and reel