

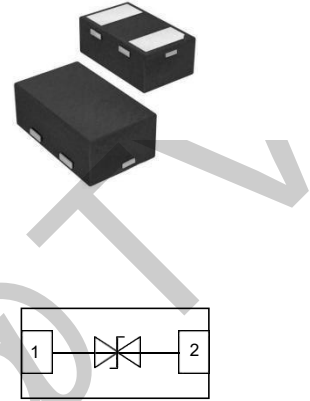
Features

- 180W peak pulse power (8/20 μ s)
- Low capacitance: 10pF typical
- Operating voltage: 24V
- Low clamping voltage
- Protects one power line or data line
- IEC 61000-4-2 (ESD): ± 25 kV Air / ± 20 kV Contact
- IEC 61000-4-5 (Lightning): 3A (8/20 μ s)
- RoHS compliant, halogen free

Mechanical Data

- Package: DFN1006-2 (1.0 $\times$ 0.6 $\times$ 0.5mm)
- Lead finish: NiPdAu
- Case material: Green molding compound
- Terminal connections: 2-pin bidirectional TVS diode
- Marking: 24B

DFN1006-2L



Applications

- Cell phone handsets and accessories
- Portable electronics
- Communication systems
- USB and data line protection

Ordering information

Ordercode	Marking	Package	Packaging option	Base quantity	Packaging specification
DC2421P1	24B	DFN1006-2	Tape and reel	10000pcs / reel	EIA STD RS-481

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

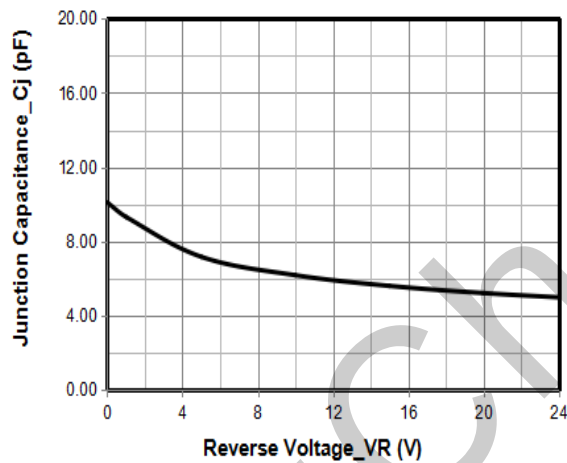
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu$ s)	P_{PP}	180	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	$\pm 20/\pm 25$	kV
Peak Pulse Current ($T_P = 8/20\mu$ s)	I_{PP}	3	A
Junction Temperature	T_J	-55 ~ +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

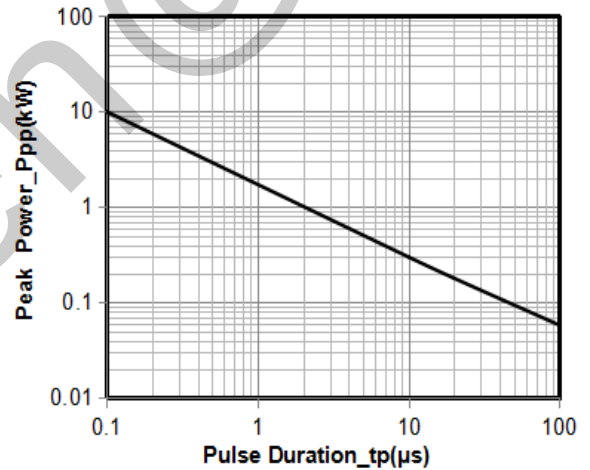
($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}		-	-	24	V
Holding Voltage	V_{BR}	$I_T = 1\text{mA}$	27	-	-	V
Reverse Leakage Current	I_R	$V_{RWM} = 24\text{V}$	-	-	0.2	μA
Clamping Voltage	V_C	$I_{PP} = 3\text{A}, t_p = 8/20\mu\text{s}$	-	42	60	V
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	10	-	pF

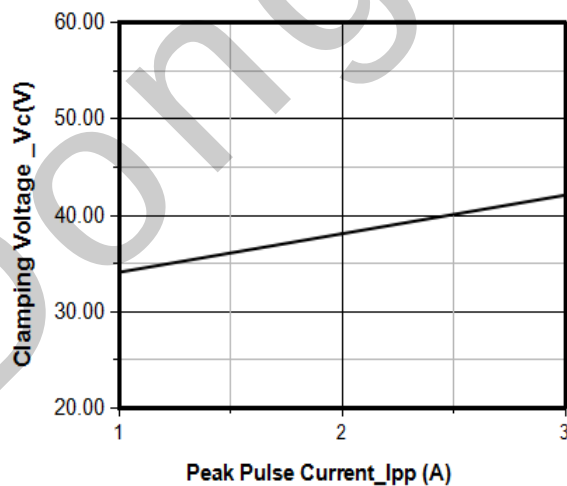
Typical Performance Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise Specified)



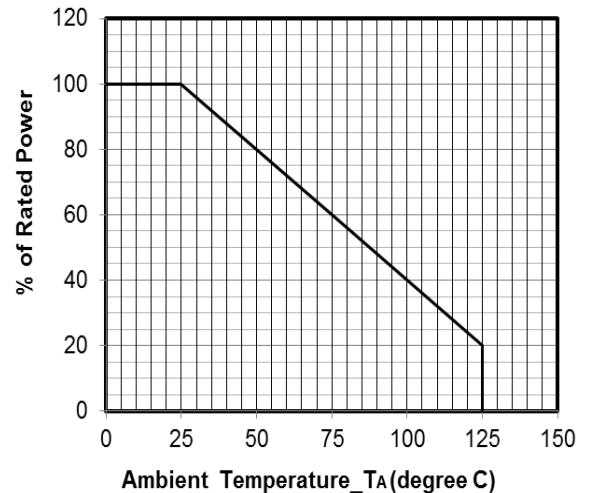
Junction Capacitance vs. Reverse Voltage



Peak Pulse Power vs. Pulse Time

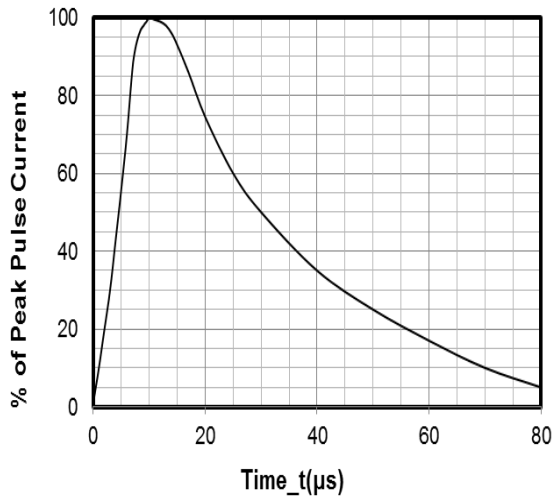


Clamping Voltage vs. Peak Pulse Current

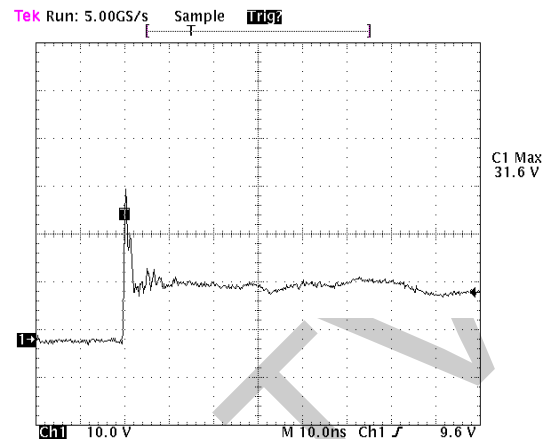


Power Derating Curve

24V Bi-directional TVS Diode



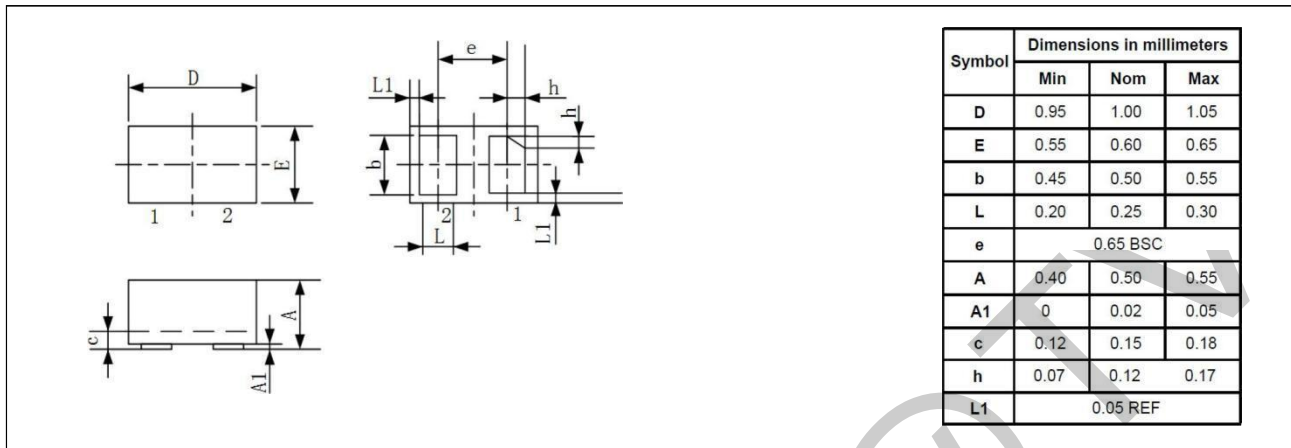
8 X 20μs Pulse Waveform



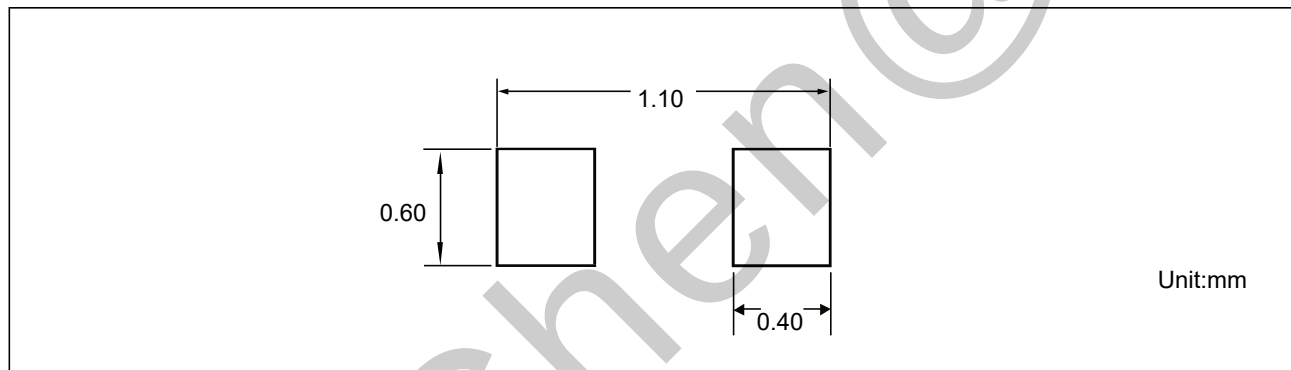
Note: Data is taken with a 10x attenuator

ESD Clamping Voltage
8 kV Contact per IEC61000-4-2

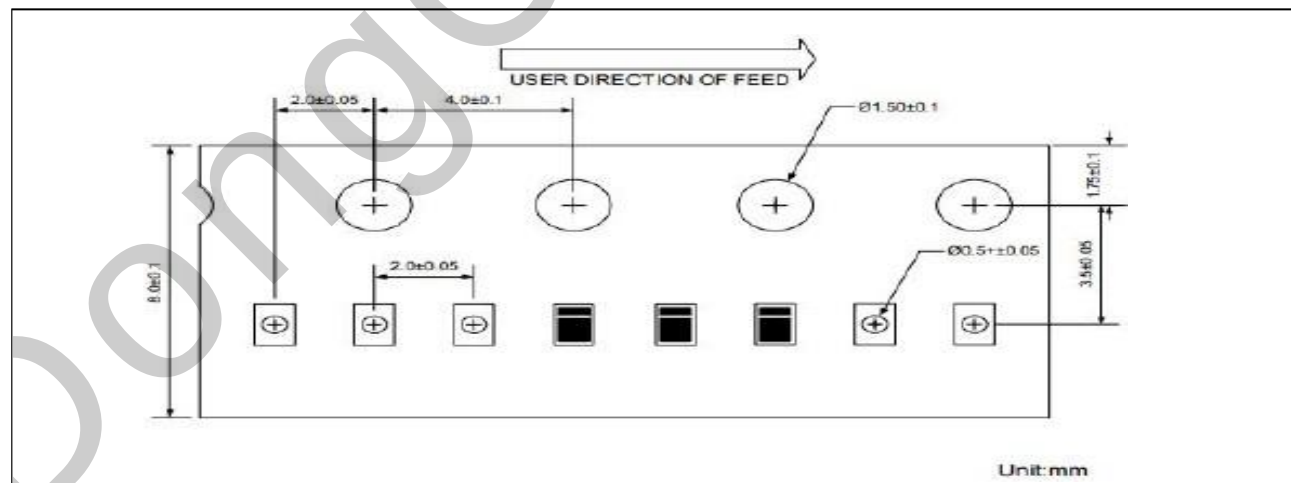
Package Dimensions



Pad Dimensions



Tape and Reel Specification



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