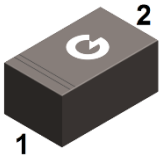
Uni-directional TVS Diode
SD15L

Features

- ESD / transient protection of high speed data lines
  - IEC 61000-4-2 (ESD): ±30kV (air), ±30kV (contact)
- Working voltage: V_{RWM} = 15V
- Very Low Leakage current
- Very low load capacitance
- RoHS compliant with Halogen-free

HF





DFN1006-2

Mechanical Data

- Case: DFN1006-2
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
SD15L	DFN1006-2	10000 pcs / Tape & Reel	15W

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	±30	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	±30	kV
Peak Pulse Power (t_p = 8/20μs)	P_{PP}	350	W
Peak Pulse Current (t_p = 8/20μs)	I_{PP}	12	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Junction Temperature	T_J	-55 ~ +125	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V_{RWM}		-	-	15	V
Reverse Breakdown Voltage	$V_{(BR)}$	I_T = 1mA	16.7	-	-	V
Reverse Leakage Current	I_R	V_{RWM} = 15V	-	-	1	μA
Clamping Voltage	V_C	I_{PP} = 5A, tp = 8/20μs	-	-	25	V
		I_{PP} = 12A, tp = 8/20μs	-	-	30	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHZ	-	-	80	pF

Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)

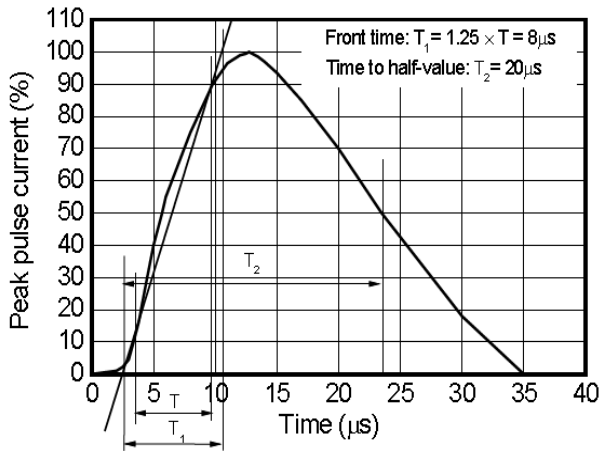


Fig 1 8/2 0μs waveform per IEC61000-4-5

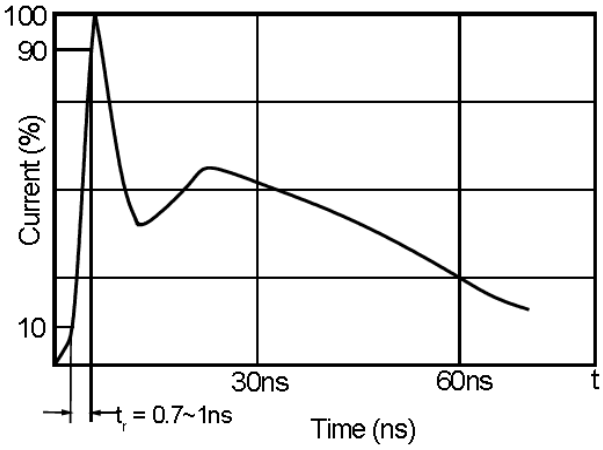


Fig 2 ESD pulse waveform according to IEC61000-4-2

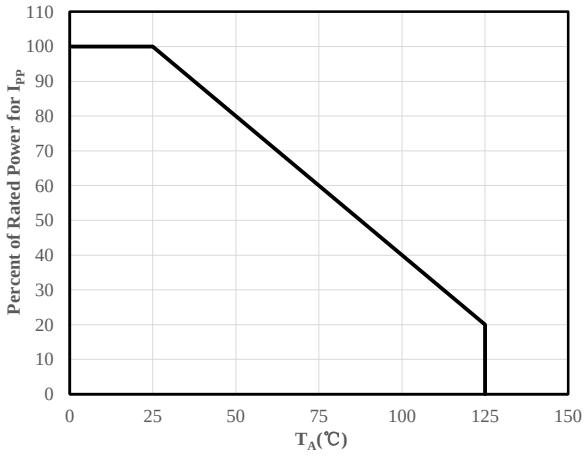


Fig 3 Power Derating Curve

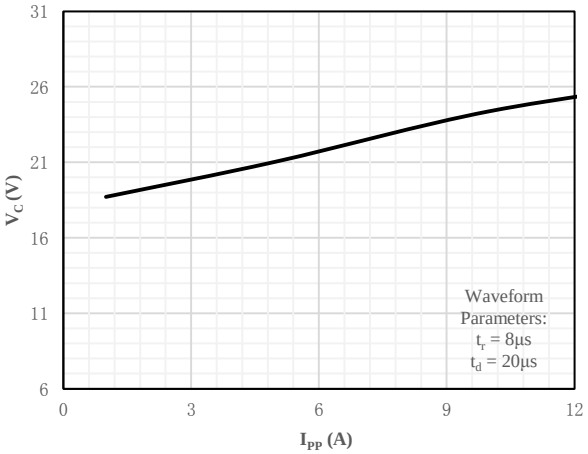


Fig 4 Clamping Voltage vs. Peak Pulse Current

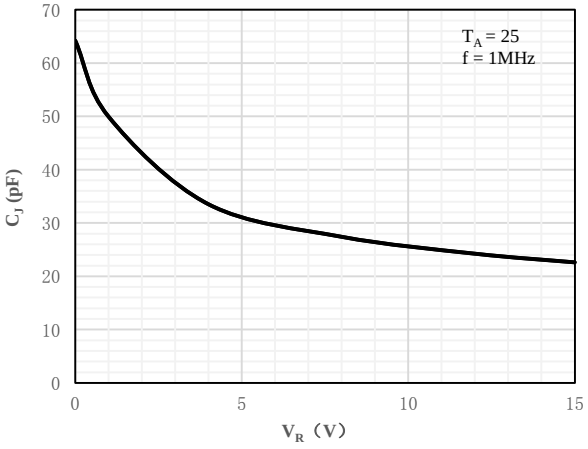
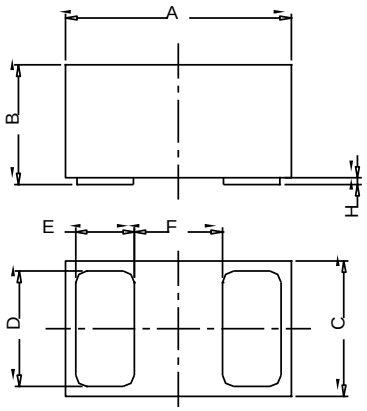


Fig 5 Capacitance vs. Reverse Voltage

Package Outline Dimensions (Unit: mm)



DFN1006-2			
Dimension	**Min.**	**Typ.**	**Max.**
A	0.95	1.00	1.075
B	0.45	0.50	0.55
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

Package Outline Dimensions (Unit: mm)

DFN1006-2

