

ESDULC1V0D06B

Features

- Ultra low capacitance: 0.35pF
- typical Ultra low leakage: nA level
- Low operating voltage: 1V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
- – IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 15\text{kV}$
 - Contact discharge: $\pm 12\text{kV}$
- – IEC61000-4-5 (Lightning) 4A (8/20 μs)
- RoHS Compliant

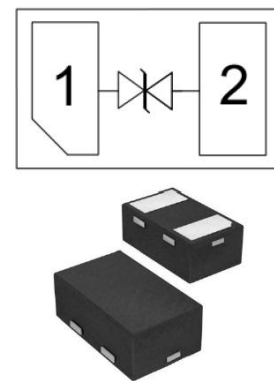
Mechanical Characteristics

- Package: DFN0603
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 10,000pcs
- Reel Size: 7 inch
- Device Marking: 1C

Applications

- USB Ports
- Smart Phones
- Wireless Systems
- Set-top box and digital TV
- Digital video interface (DVI)
- SIM Ports
- Ethernet 10/100 Base T

Circuit Diagram



Absolute Maximum Ratings

Tamb=25°C unless otherwise specified

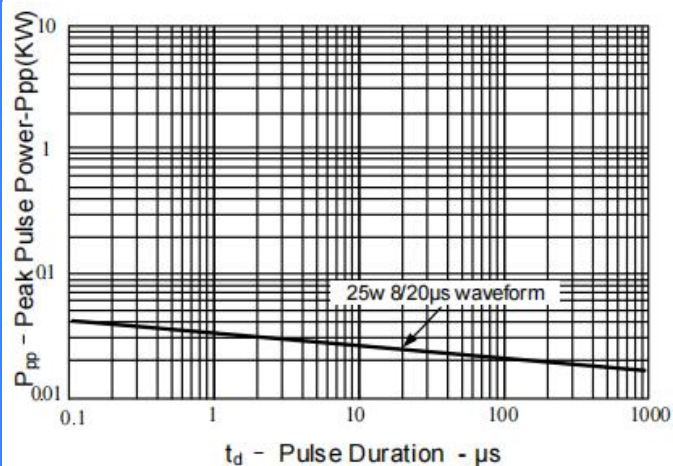
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppp	25	W
Maximum Reverse Peak Pulse Current	I _{PP} *1	4	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 15	KV
ESD per IEC 61000-4-2 (Contact)		± 12	
Storage Temperature Range	T _{STJ}	-55 to +125	°C
Operating Temperature Range	T _J	-55 to +125	°C

Electrical Characteristics

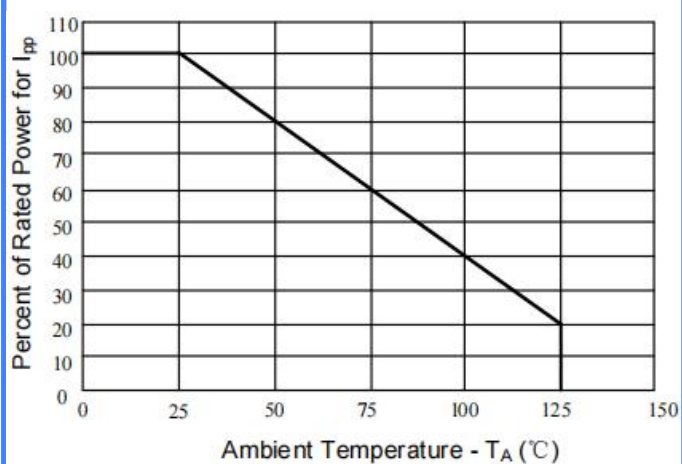
TA=25°C unless otherwise specified

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V _{RWM}	Reverse Working Peak Voltage	-			1	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	1.4			V
I _R	Reverse Current	V _{RWM} = 1V			0.5	μA
V _C	Clamping Voltage	I _{PP} =4A, t _P =8/20 μs			6	V
C _D	Diode Capacitance	VR = 0V, f = 1MHz		0.35	0.5	pF

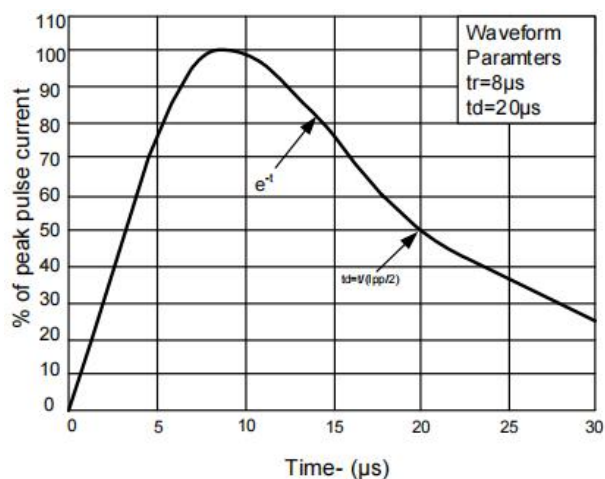
Characteristic Curves



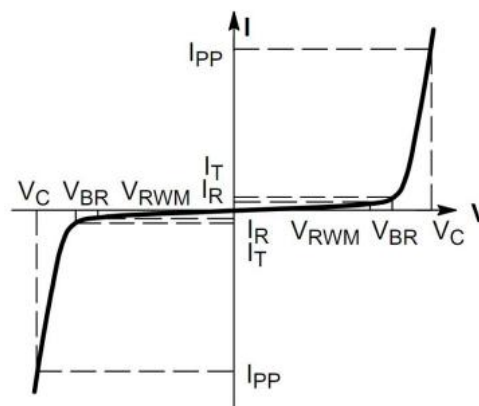
Peak Pulse Power vs. Pulse Time



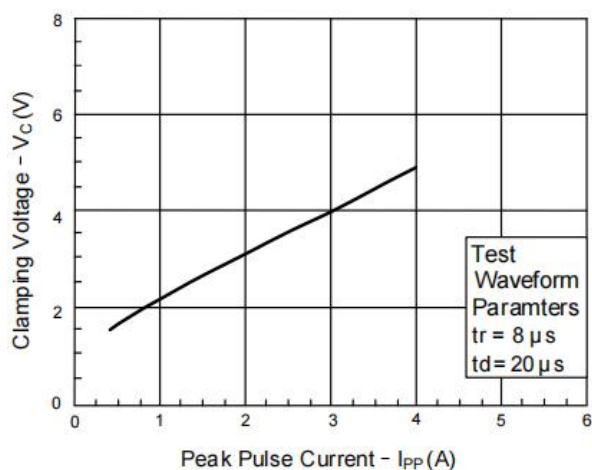
Power Derating Curve



8/20 μs Pulse Waveform

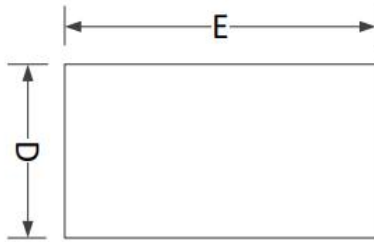


V-I Characteristics for Bidirectional Diode

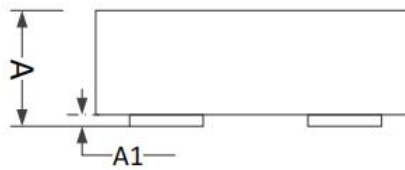


Clamping Voltage vs. I_{pp}

DFN0603-2 Package Outline & Dimensions

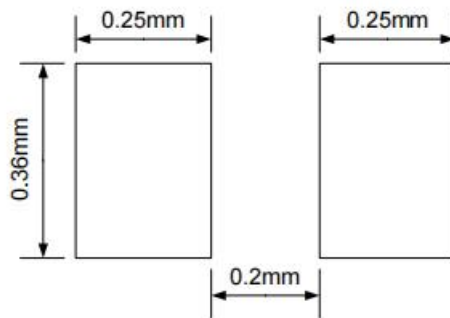
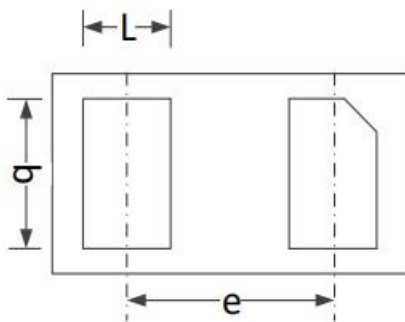


TOP VIEW



SIDE VIEW

SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.28	0.30	0.34
A1	0.00	0.02	0.05
b	0.21	0.23	0.265
L	0.14		0.24
e	0.040 BSC.		
D	0.25	0.30	0.35
E	0.55	0.60	0.65



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.