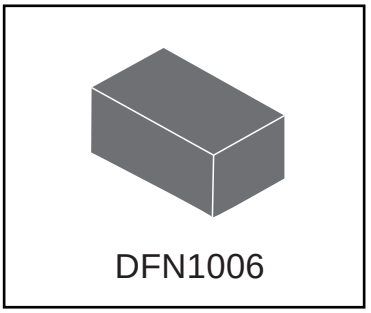
FTV05CUDFN1006

Uni-directional ESD Protection Diode

Features

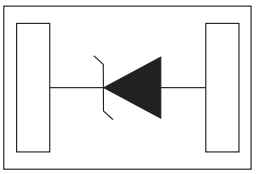
- 100 Watts Peak Pulse Power per Line (tp=8/20μs)
- Protects one birectional I/O line
- Low clamping voltage
- Working voltages : 5V
- Low leakage current



IEC Compatibility

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ηs)

Pin Configuration



Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- Pagers

Mechanical Characteristics

- JEDEC DFN1006 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 0.5 Millgrams (Approximate)
- Quantity Per Reel : 10,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

FTV05CUDFN1006

Maximum Ratings(T_A=25℃ unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Pulse Power(tp=8/20μs)	P_{PP}	100	Watts
Lead Soldering Temperature	T_L	260(10 sec.)	℃
Operating Temperature Range	T_J	-55~150	℃
Storage Temperature Range	T_{STG}	-55~150	℃

Electrical Characteristics(T_A=25℃ unless otherwise specified)

FTV05CUDFN1006(Marking: E)						
Parameter	**Symbol**	**Conditions**	**Min.**	**Typ.**	**Max.**	**Units**
Reverse Stand-off Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T=1mA	5.6			V
Clamping Voltage	V_C	I_{PP}=1A,tp=8/20μs			9.5	V
		I_{PP}=4A,tp=8/20μs			15	V
Reverse Leakage Current	I_R	@V_{RWM}			1	μA
Junction Capacitance	$C_{I/O}$	0Vdc,f=1MHz Between I/O Pins and GND		0.6	0.9	pF

Ratings and Characteristic Curves

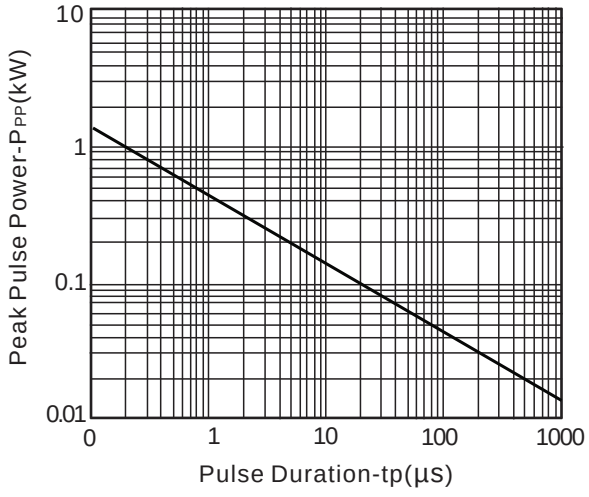


Fig.1 Non-Repetitive Pulse Power vs.Pulse Time

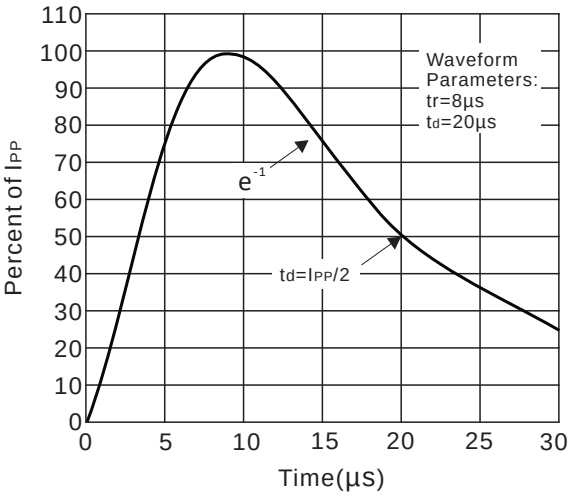
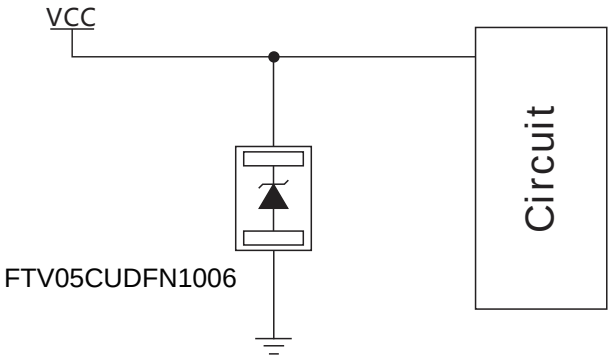
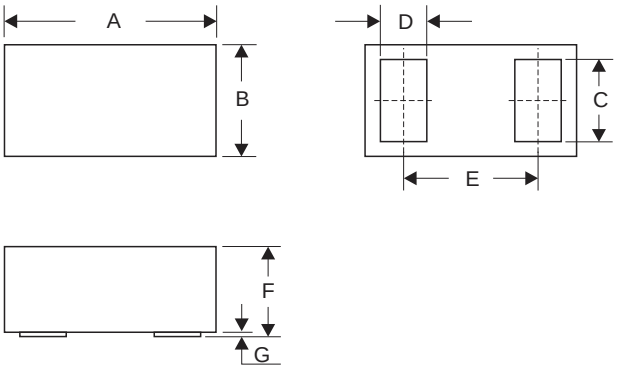


Fig.2 Pulse Waveform

Application- Power Protection



Dimensions(DFN1006)



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.95	1.07	0.037	0.042
B	0.55	0.65	0.022	0.026
C	0.45	0.55	0.017	0.022
D	0.20	0.40	0.008	0.016
E	0.65BSC		0.026BSC	
F	0.40	0.55	0.015	0.022
G	0.00	0.10	0.000	0.004