

Features

- ◆ 65Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆ Tiny DFN0603 package
- ◆ Bidirectional configurations
- ◆ Solid-state silicon-avalanche technology
- ◆ Low clamping voltage
- ◆ Low leakage current
- ◆ Low capacitance ($C_j = 6pF$ typ.)
- ◆ Protection one data/power line
- ◆ IEC 61000-4-2 $\pm 25kV$ contact $\pm 25kV$ air
IEC 61000-4-4 (EFT) 40A(5/50ns)
IEC 61000-4-5 (Lightning) 5A (8/20 μs)
- ◆ AEC-Q101 qualified (Automotive grade with suffix " Q".)



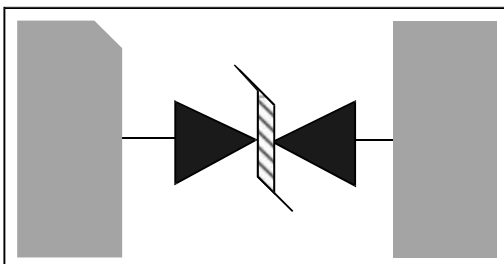
Mechanical Data

- ◆ DFN0603package
- ◆ Molding compound flammability rating: UL 94V-0
- ◆ Packaging: Tape and Reel
- ◆ RoHS/WEEE Compliant

Applications

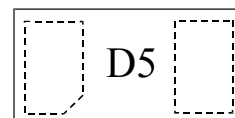
- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based equipment
- ◆ Personal Digital Assistants (PDA's)
- ◆ Notebooks, Desktops, and Servers
- ◆ Portable Instrumentation

Schematic & PIN Configuration



DFN0603

Marking



Ordering Information

Order Code	Package	Base Quantity	Delivery Mode
EPDFN1C051V-D5	DFN0603	10000 PCS/Reel	Tape and Reel

Absolute Maximum Ratings

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	65	Watts
Peak Pulse Current ($t_p=8/20\mu s$) (note1)	I_{pp}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	25 25	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	5.5	6.5	8.5	V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^\circ C$		0.1	0.5	μA
Clamping Voltage	V_C	$I_{PP}=5A, t_p=8/20\mu s$			13	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		10	15	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

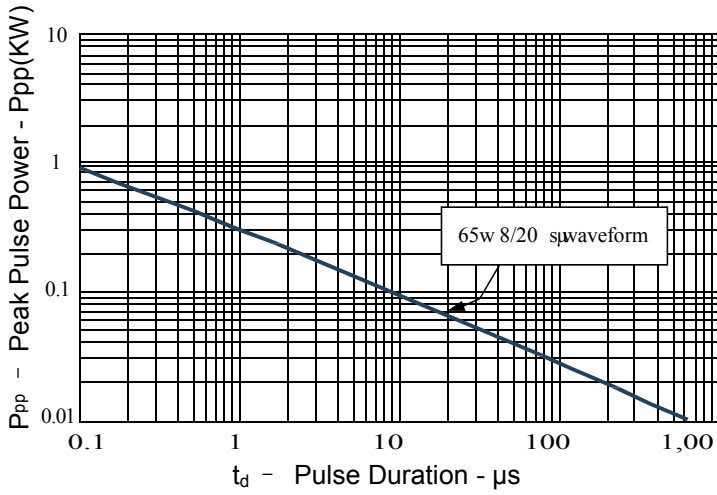


Figure 2: Power Derating Curve

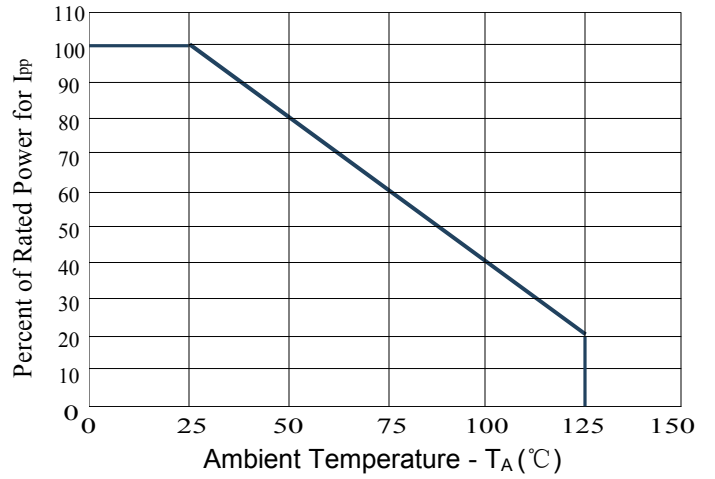


Figure3: Pulse Waveform

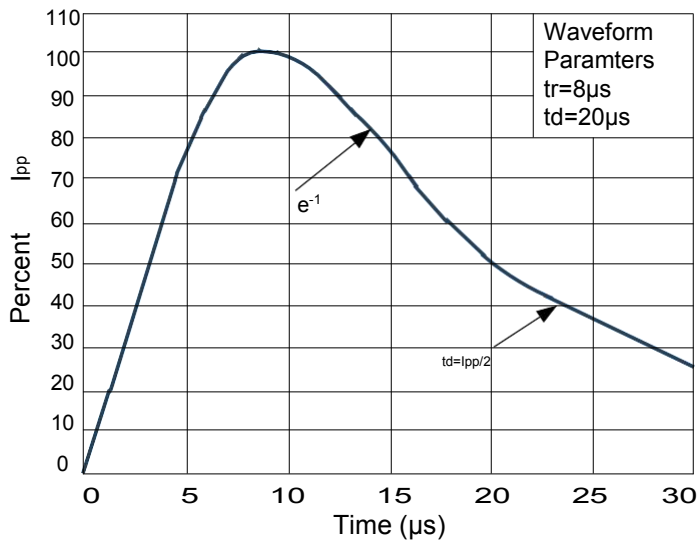
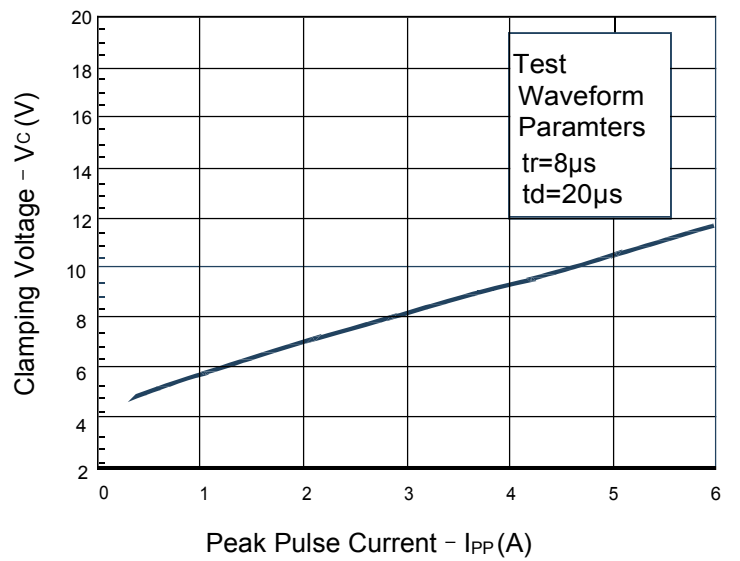
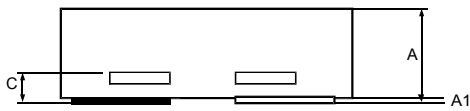
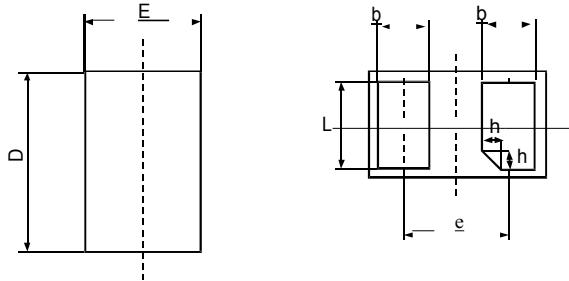


Figure 4: Clamping Voltage vs. Ipp



DFN0603 Outline Drawing



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.28	0.30	0.32
A1	0.00	0.02	0.05
C	0.05	0.10	0.15
D	0.55	0.60	0.65
E	0.25	0.30	0.35
e	0.34	0.35	0.37
b	0.14	0.19	0.24
L	0.20	0.25	0.30
h	0	0.05	0.10