

Descriptions

This is Transient Voltage Suppressor in a DFN0603-2L Plastic Package.

Features

- Small Body Outline Dimensions
- Protects one I/O or power line
- Working Voltage: 12V
- Low Leakage Current

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 4A (8/20 μs)

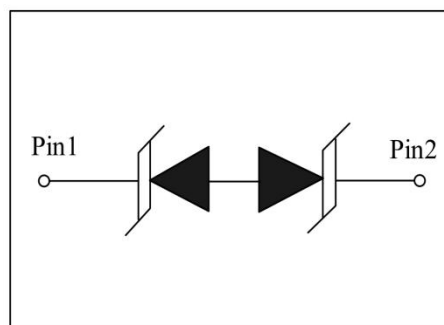
Mechanical Characteristics

- DFN0603-2L package
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant & HF

Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras

Schematic & PIN Configuration

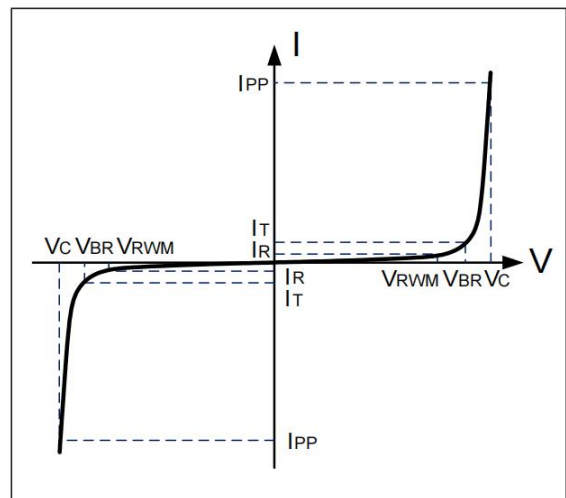


Absolute Maximum Ratings(Ta=25°C)

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	PPP	80	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	IPP	4	A
Operating Temperature	TJ	-55 to + 125	°C
Storage Temperature	TSTG	-55 to +150	°C

Electrical Parameters

Symbol	Parameter
IPP	Reverse Stand-Off Voltage
VC	Clamping Voltage @ IPP
VRWM	Reverse Stand-Off Voltage
IR	Reverse Leakage Current @ VRWM
VBR	Breakdown Voltage @ IT
IT	Test Current



Electrical Characteristics(T=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				12	V
Reverse Breakdown Voltage	V_{BR}	$I_r=1mA$	13.3			V
Reverse Leakage Current	I_R	$V_{RWM}=12V$			500	nA
Clamping Voltage	V_C	$I_{PP}=4A, t_p=8/20\mu s$		16.5	20	V
Dynamic Resistance ^{1,2}	R_{DYN}	TLP=0.2/100ns		0.36		Ω
ESD Clamping Voltage ¹	V_C	$I_{PP} = 4A,$ $t_p = 0.2/100ns$ (TLP)		13.7		V
ESD Clamping Voltage ¹	V_C	$I_{PP} = 16A,$ $t_p = 0.2/100ns$ (TLP)		18		V
Junction Capacitance	C_j	$V_R=0V, f=1MHz$		7	12	pF

Notes :

- 1、 TLP Setting : $t_p=100ns, t_r=0.2ns, I_{TLP}$ and V_{TLP} sample window: $t_1=70ns$ to $t_2=90ns$.
- 2、 Dynamic resistance calculated from $I_{PP}=4A$ to $I_{PP}=16A$ using "Best Fit"

Typical Characteristics

Figure 1: Peak Pulse Power Vs Pulse Time

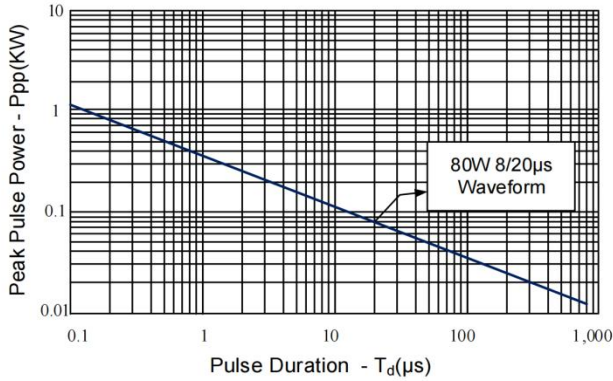


Figure 2: Power Derating Curve

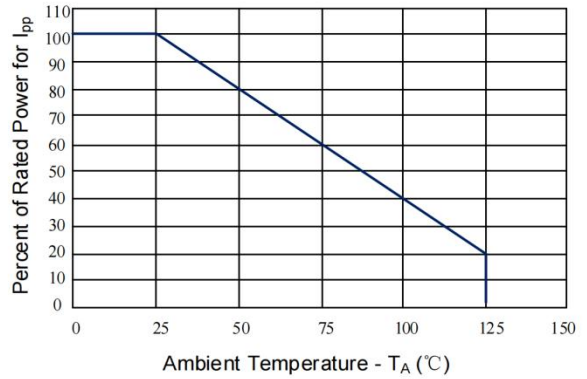


Figure 3: Clamping Voltage vs. Peak Pulse Current

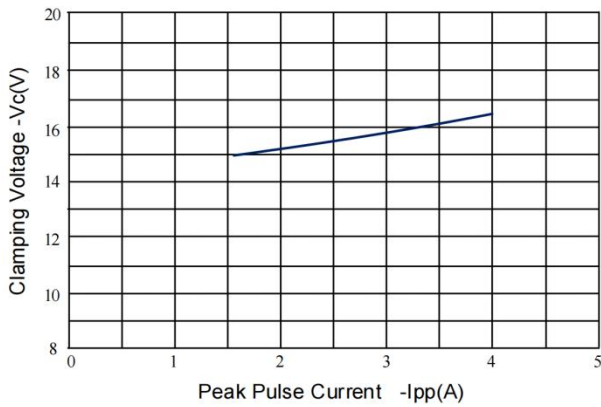


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

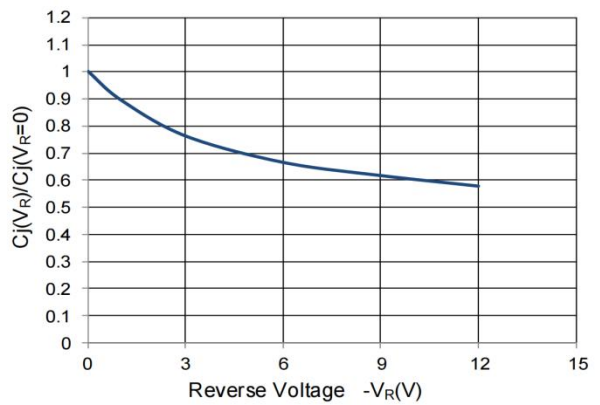


Figure 5: TLP Positive I-V Curve

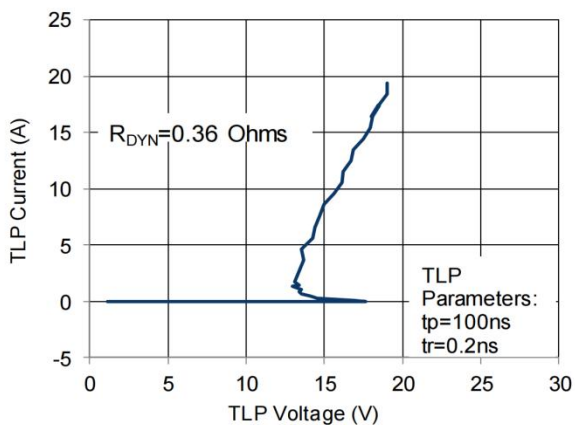
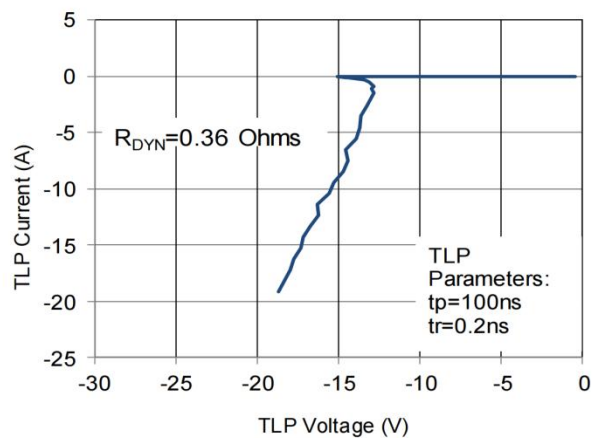
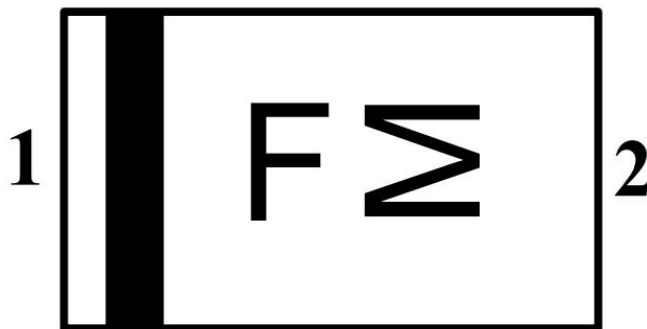


Figure 6: TLP Negative I-V Curve



Marking Information



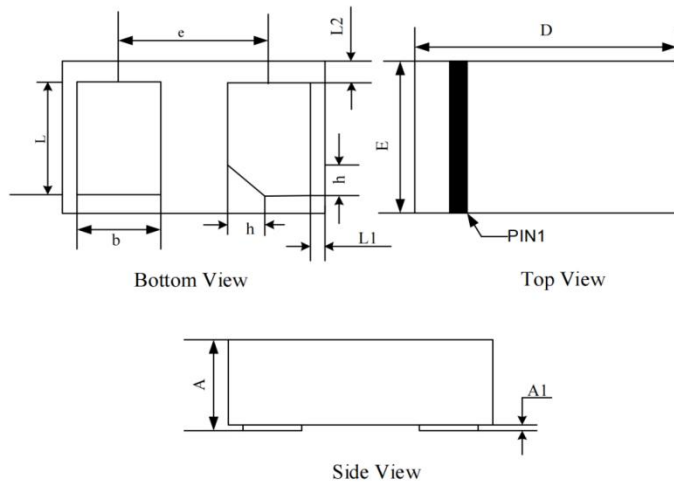
F= Specific Device Code M=Month Code

Package Information

Qty: 15k/Reel

Mechanical Dimensions for DFN0603-2L

PACKAGE OUTLINE



DFN0603-2L

SYMBOL	MILLIMETERS		
	NOM	MIN	MAX
A	--	0.280	0.320
A1	--	--	0.050
D	0.610	0.570	0.630
E	0.310	0.270	0.330
b	0.180	0.155	0.205
L	0.240	0.200	0.260
h	--	0.050	0.100
L1	0.035REF		
L2	0.035REF		
e	0.360BSC		

Land Pattern

