



Features

- Small Body Outline Dimensions: 0.60 mm x 0.30 mm
- 100 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Bidirectional ESD Protection of one line
- Low Clamping Voltage
- Working Voltage: 3.3 V
- Low Leakage Current

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 7A (8/20 μs)

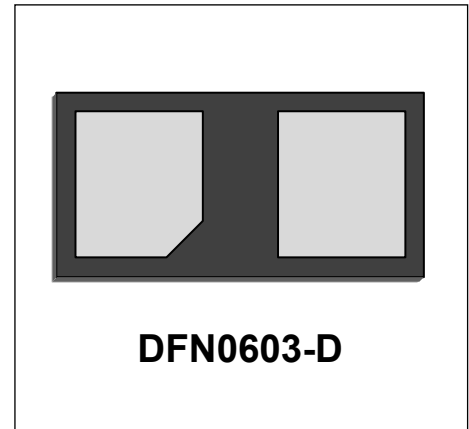
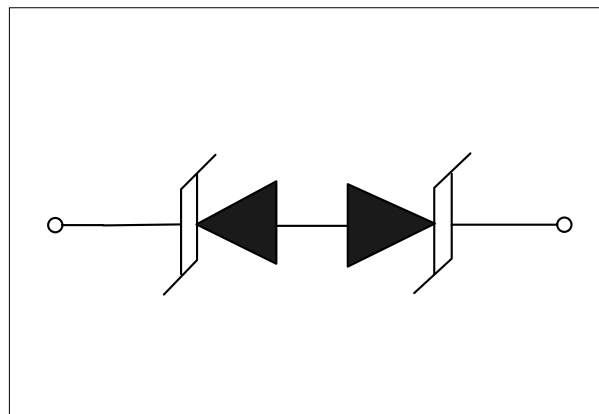
Mechanical Characteristics

- DFN0603-D package
- Molding compound flammability rating:
UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant

Applications

- Cellular handsets and accessories
- Portable electronics
- Communication systems
- Computers and peripherals

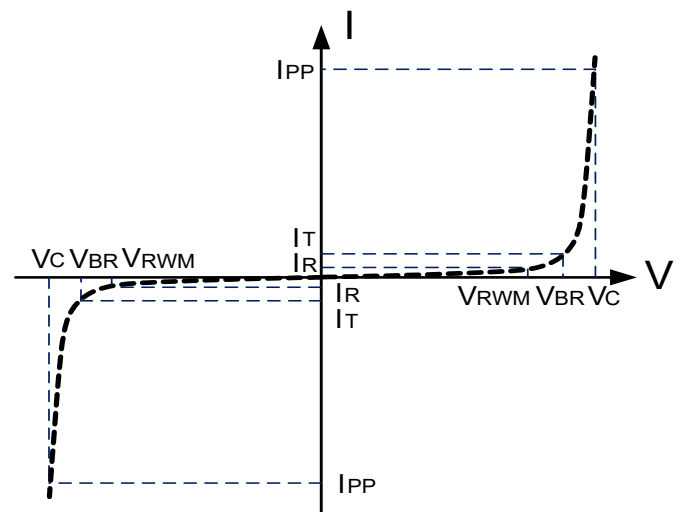
Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	7	A
Operating Temperature	T_J	-55 to + 150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

Electrical Parameters (T=25 $^{\circ}C$)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Electrical Characteristics

DW03DS-B-01-E						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	3.7			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V, T = 25^{\circ}C$			100	nA
Clamping Voltage	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$		5.5	7.0	V
Clamping Voltage	V_C	$I_{PP} = 7A, t_p = 8/20\mu s$		8.0	10.0	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		7.5	8.5	pF

Note: 1. ESD Pulse Waveform according to IEC 61000-4-2. see Table1 and Figure4.

2. ESD tests Setup see Figure 5.

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

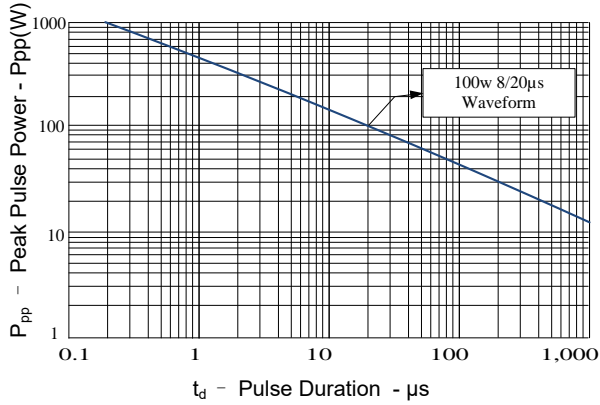


Figure 2: Power Derating Curve

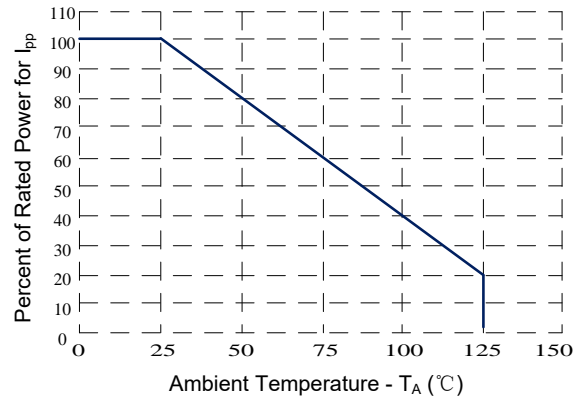


Figure 3: Normalized Junction Capacitance vs. Reverse Voltage

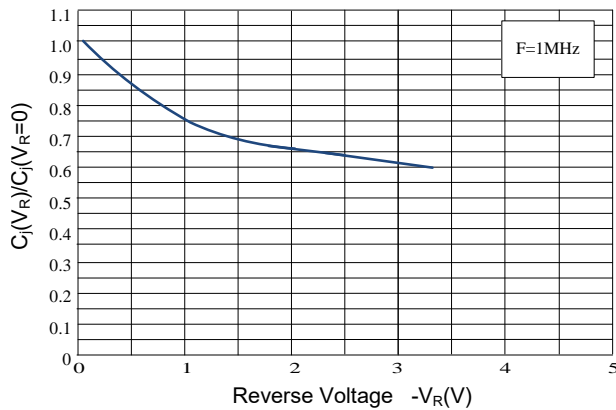


Table 1. IEC 61000-4-2 Discharge Parameters

Level	First Peak Current (A)	Peak Current at 30 ns (A)	Peak Current at 60 ns (A)	Test Voltage (Contact Discharge) (kV)	Test Voltage (Air Discharge) (kV)
1	7.5	4	2	2	2
2	15	8	4	4	4
3	22.5	12	6	6	8
4	30	16	8	8	15

Figure 4: ESD Clamping(8kV Contact per IEC 61000-4-2)

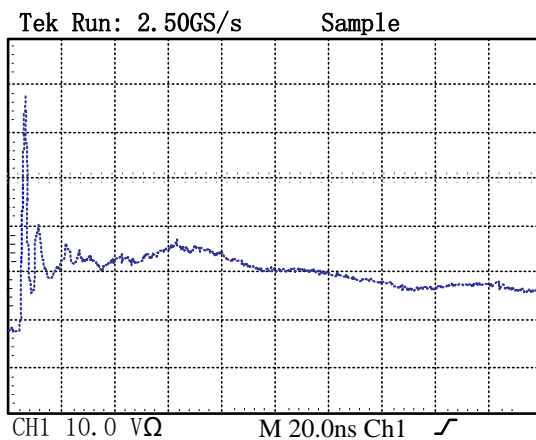
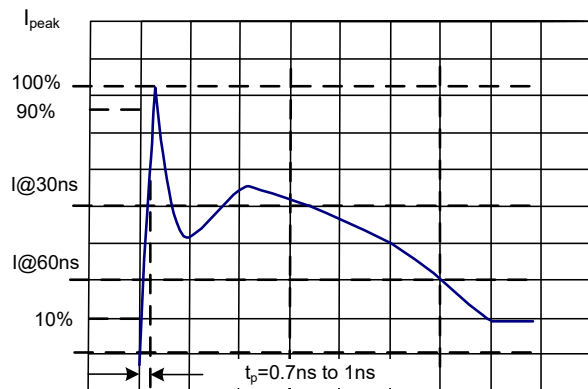
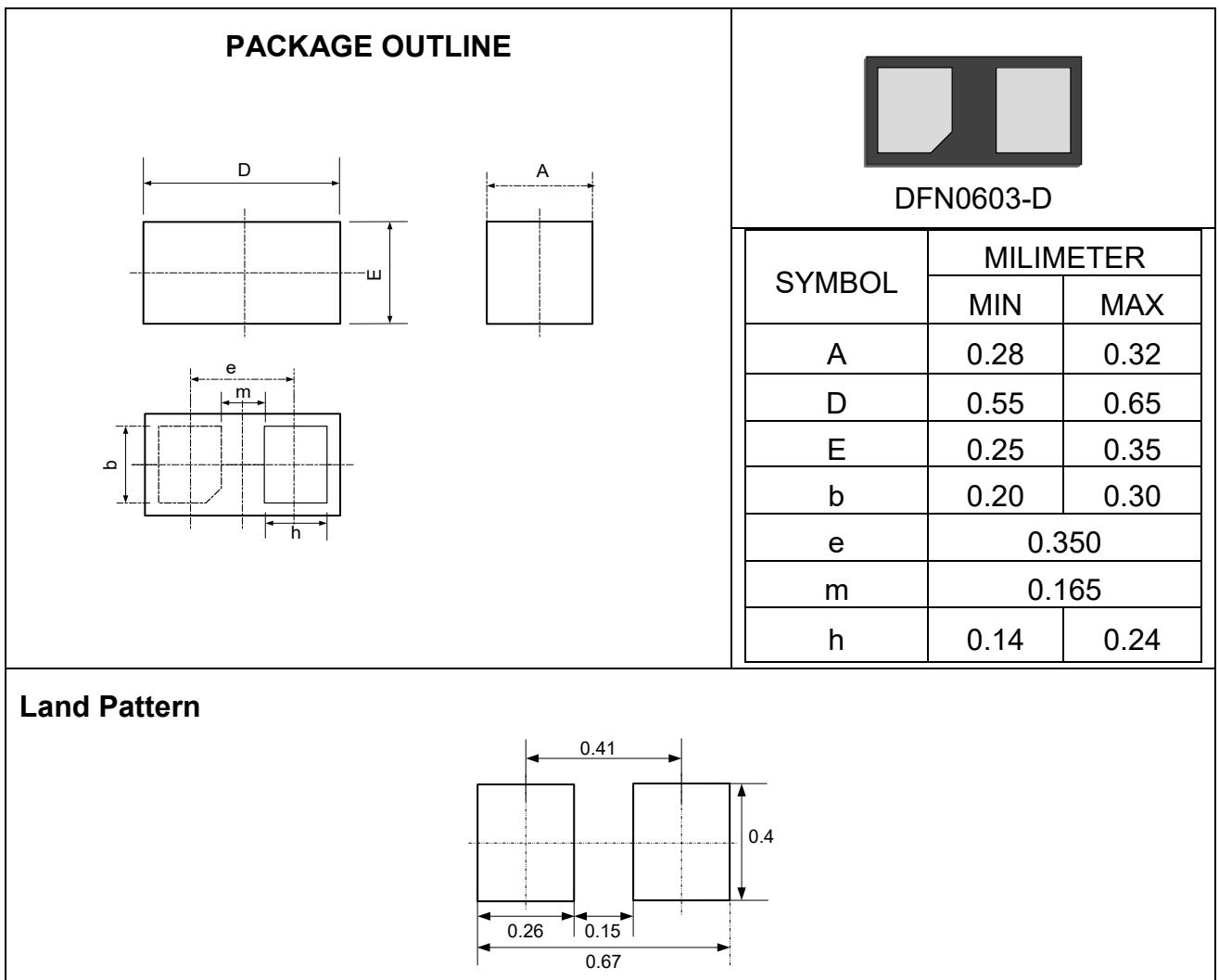



Figure 5: IEC 61000-4-2 Waveform



Outline Drawing –DFN0603-D



Marking Codes

Part Number	Marking Code
DW03DS-B-01-E	 B = Specific Device Code M = Month Code

Package Information

Qty: 15k/Reel