

### 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 $\mu s$ )



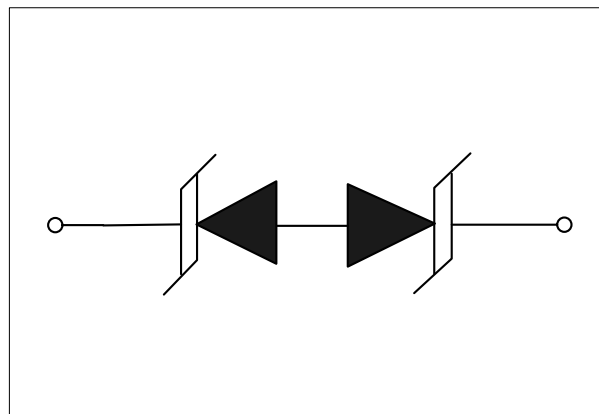
### Mechanical Characteristics

- 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

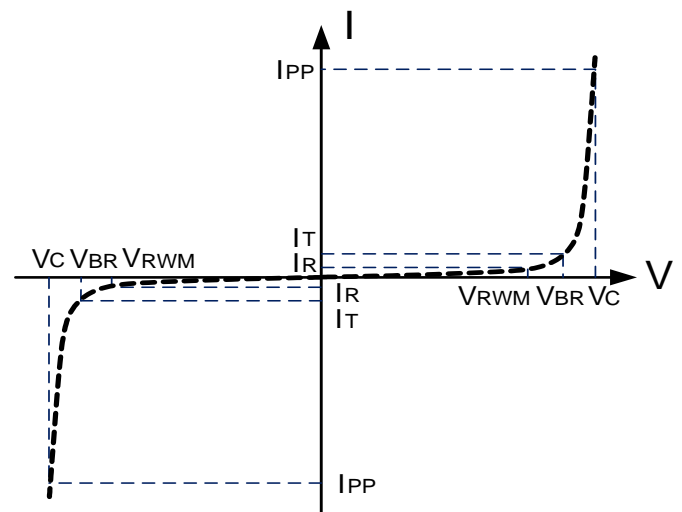
### Schematic & PIN Configuration



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

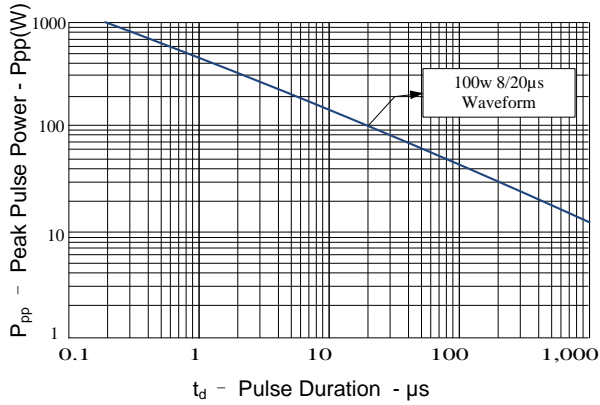
DW03DS-B-01-E						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	3.7			V
Reverse Leakage Current	$I_R$	$V_{RWM}=3.3V, T=25^{\circ}C$			100	nA
Clamping Voltage	$V_C$	$I_{PP}=1A, t_p=8/20\mu s$		5.5	7.0	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.

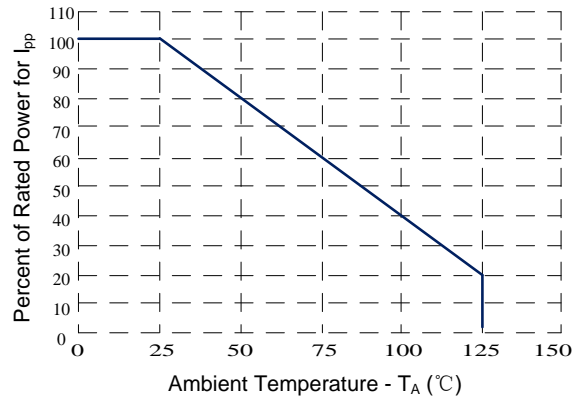
2. ESD tests Setup see Figure 5.

# Typical Characteristics

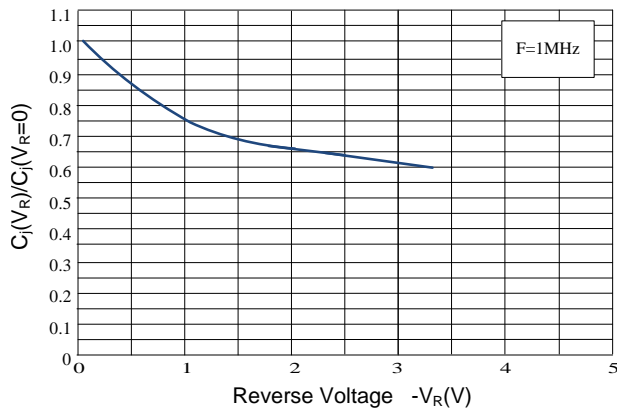
**Figure 1: Peak Pulse Power vs. Pulse Time**



**Figure 2: Power Derating Curve**



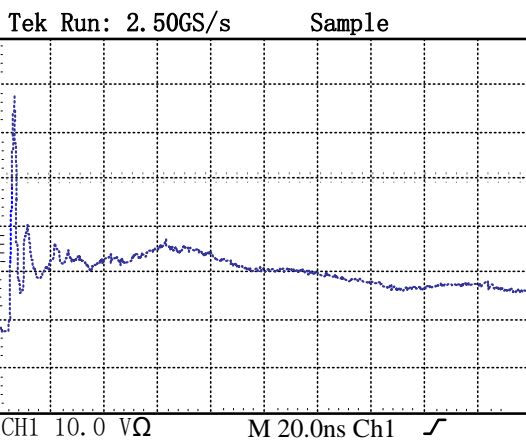
**Figure 3: Normalized Junction Capacitance vs. Reverse Voltage**



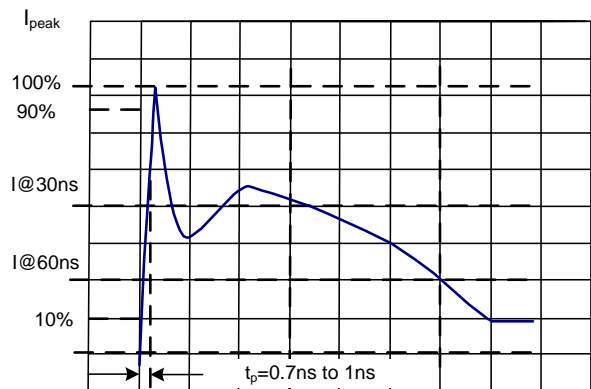
**Table 1. IEC 61000-4-2 Discharge Parameters**

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

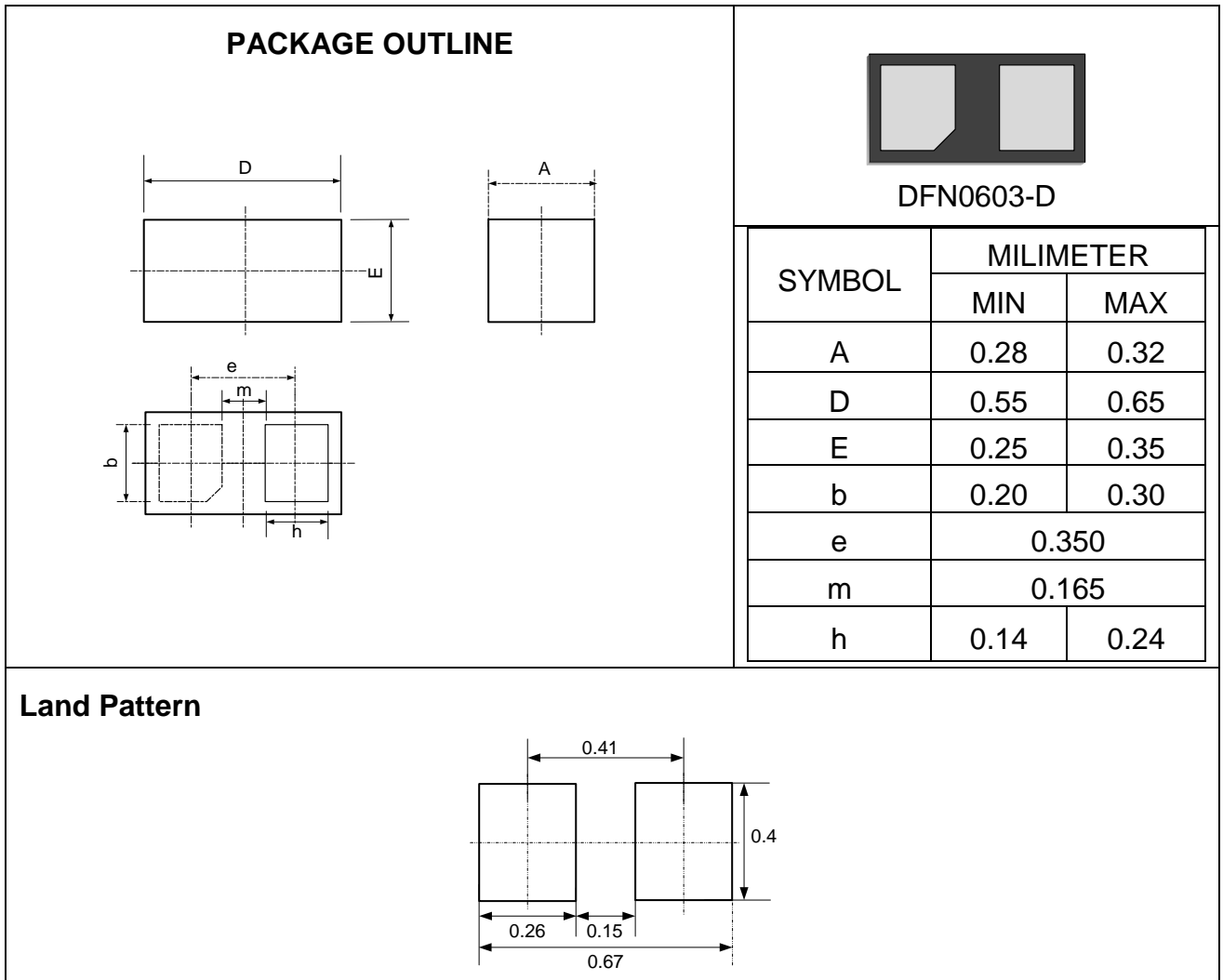
**Figure 4: ESD Clamping( 8kV Contact per IEC 61000-4-2)**



**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