



DWESD05F6BE ESD Protection Diode

Feature

- Bi-directional ESD protection of one line
- 36Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 5.5V
- Junction Capacitance: 0.1pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 8kV$ contact $\pm 15kV$ air
- IEC 61000-4-4 (EFT) 2A (5/50ns)

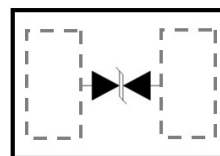
Application

- Super high-speed interface
- RF antenna

Mechanical Data

- Package: DFN0603-2L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	Packing	Reel Size
DWESD05F6BE	DFN0603-2L	5B	10000 Tape & Reel	7 inches



Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p=8/20\mu\text{s}$)	P_{PP}	36	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 15 ± 8	kV
Lead Soldering Temperature	T_L	260 (10seconds)	$^{\circ}\text{C}$
Operating Temperature	T_{OPT}	-55 to + 125	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to + 150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5.5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6.0			V
Reverse Leakage Current	I_R	$V_{RWM} = 5.5\text{V}$			0.1	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)			15	V
Clamping Voltage	V_C	$I_{PP} = 2\text{A}$ (8 x 20 μs pulse)			18	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		0.1	0.2	pF



Typical Characteristic

Fig 1 8/20 μ s Waveform per IEC61000-4-5

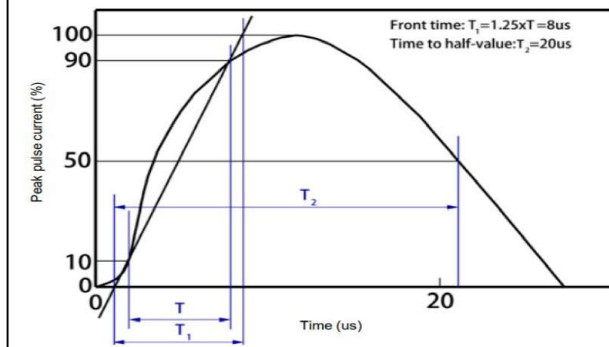


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

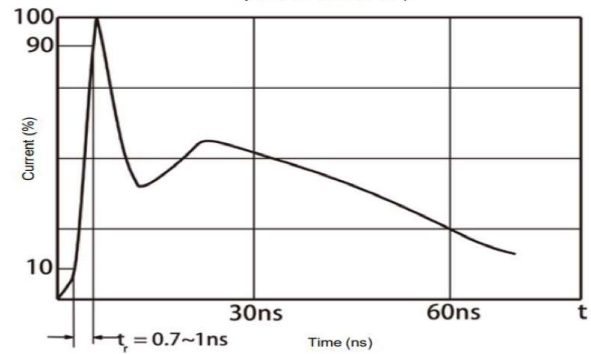


Fig 3 Voltage vs Capacitance

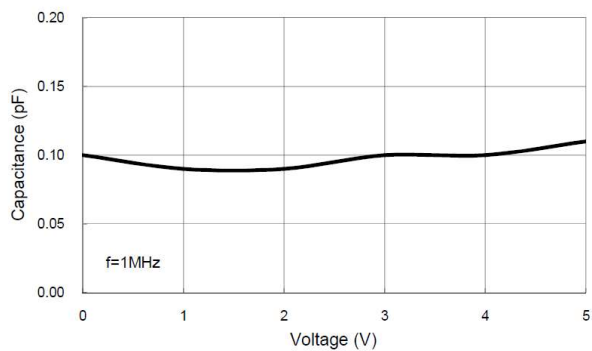
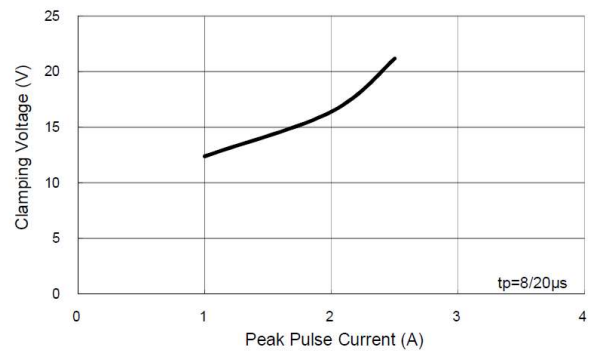
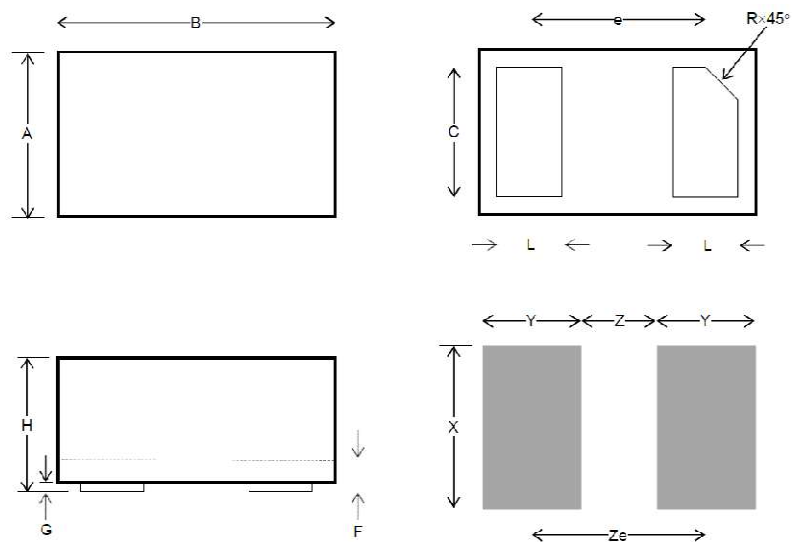


Fig 4 Peak Pulse Current vs Clamping Voltage





Outline Drawing – DFN0603-2L



DFN0603			
SYMBOL	Millimeters		
	MIN	NOM	MAX
A	0.29	0.32	0.34
B	0.58	0.62	0.65
C	0.2	0.25	0.3
D	-	0.02	0.05
E	0.28	0.3	0.34
F	0.14	0.19	0.24
G	0.34	0.35	0.37
H	-	0.05	0.1
X		0.27	
Y		0.19	
Z		0.19	
Ze		0.38	