

Features

- Small Body Outline Dimensions:
0.60 mm x 0.30 mm
- Bidirectional ESD Protection of one line
- Low Clamping Voltage
- Low Capacitance: 0.5 pF
- Working Voltage: 5 V
- Low Leakage Current

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 20\text{kV}$ (air), $\pm 18\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)



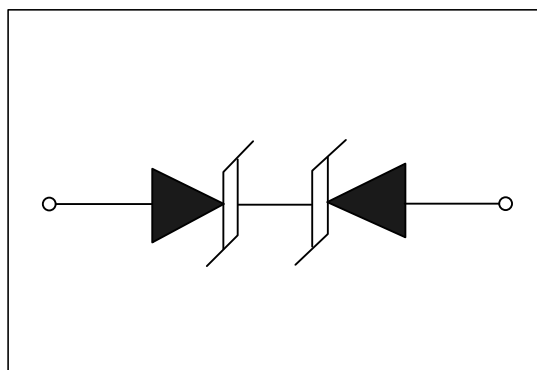
Mechanical Characteristics

- 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

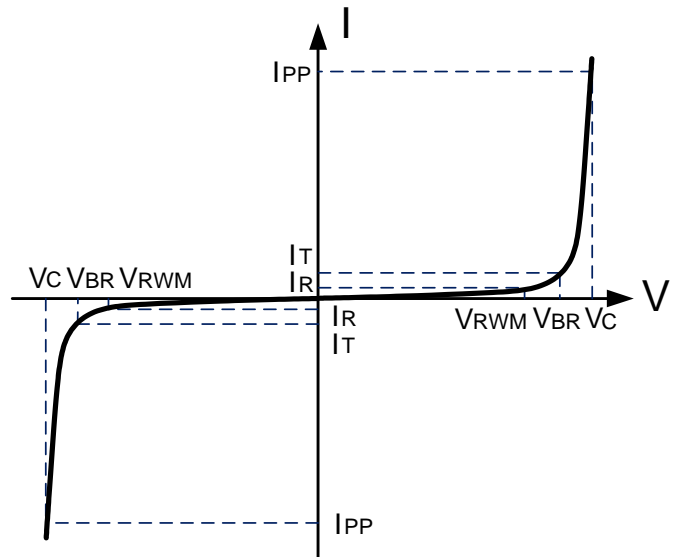
Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Electrostatic discharge Voltage	V_{ESD}	18KV (contact)	Volts
		20KV (air)	
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°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
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

WE05DUCS-B						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	5.5		10.0	V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25°C$			1	μA
Clamping Voltage	V_C	$I_{PP}=1A, t_p=8/20\mu s$			15	V
		$I_{PP}=5A, t_p=8/20\mu s$			26	
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		0.5	0.6	pF

Note1: ESD Pulse Waveform according to IEC 61000-4-2. see Table1 and Figure4.

Note2: ESD tests Setup see Figure 5.

Typical Characteristics

Figure 1: Pulse Waveform

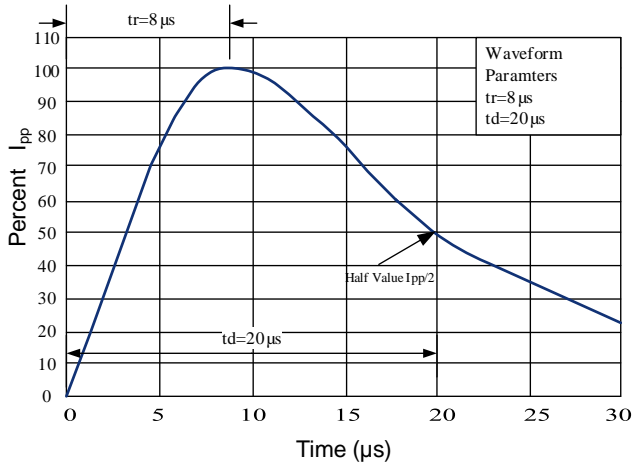


Figure 2: Power Derating Curve

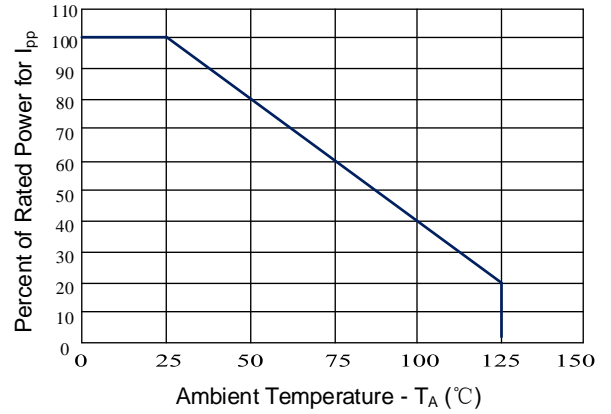


Figure 3: Normalized Junction Capacitance

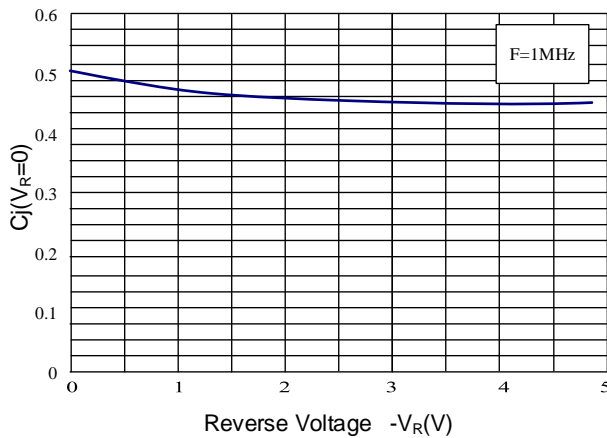


Table 1. IEC 61000-4-2 Discharge Parameters

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)

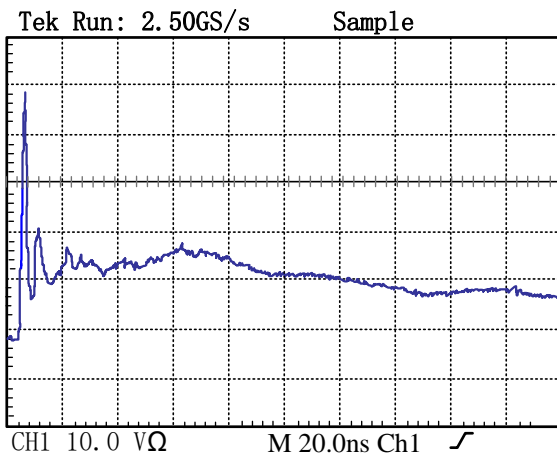
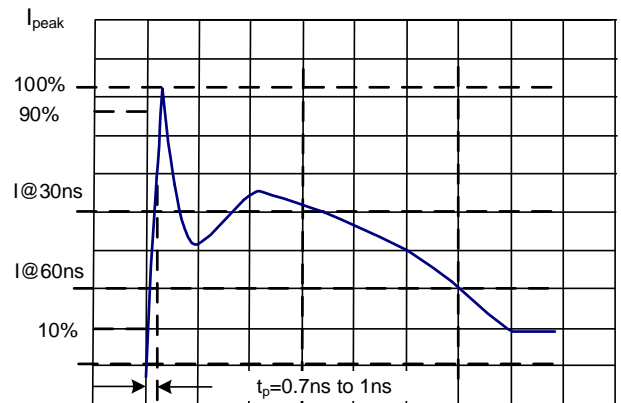


Figure 5: IEC 61000-4-2 Waveform



Outline Drawing –DFN0603-D

PACKAGE OUTLINE

DFN0603-D

SYMBOL	MILIMETER	
	MIN	MAX
A	0.28	0.32
D	0.55	0.65
E	0.25	0.35
b	0.20	0.30
e	0.350	
m	0.165	
h	0.14	0.24

Land Pattern

Marking Codes

Part Number	Marking Code
WE05DUCS-B	<p>D = Specific Device Code M = Month Code</p>

Package Information

Qty: 15k/Reel

CONTACT INFORMATION

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For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.