

**ESD Diode**

**Peak Pulse Power - 50 Watts**

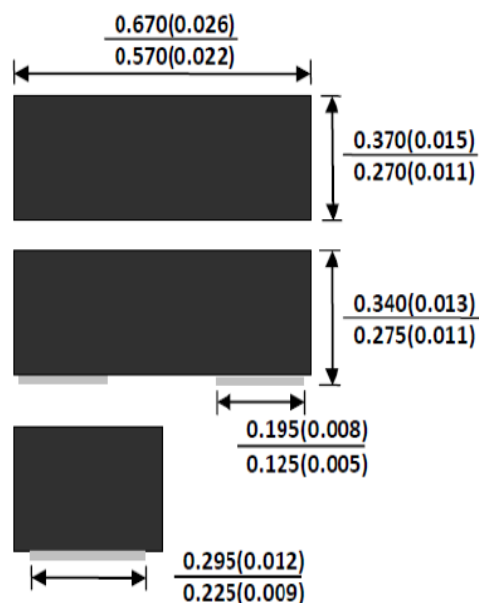
**Features**

- Halogen free.
- Surface mount package.
- Bi-directional ESD protection.
- IEC61000-4-2 25kV(Contact), 30kV(Air).
- Operating voltage: 5V

**Mechanical Data**

- Case: DFN0603(0201) standard package
- Terminals: Au / Sn plated, Solderable per MIL-STD-750, method 2026
- Mounting position: Any.
- Weight: 0.001 gram(approx.)
- MSL : Level 1
- Marking Code: H

**DFN0603(0201)**



**Maximum Ratings and Electrical Characteristics**

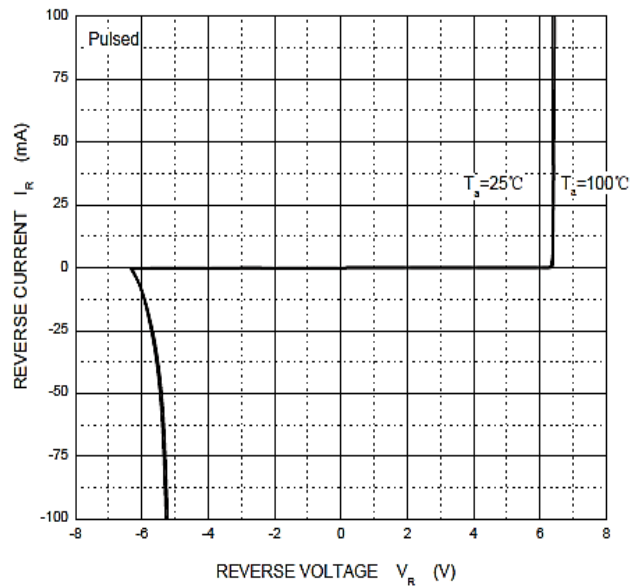
Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

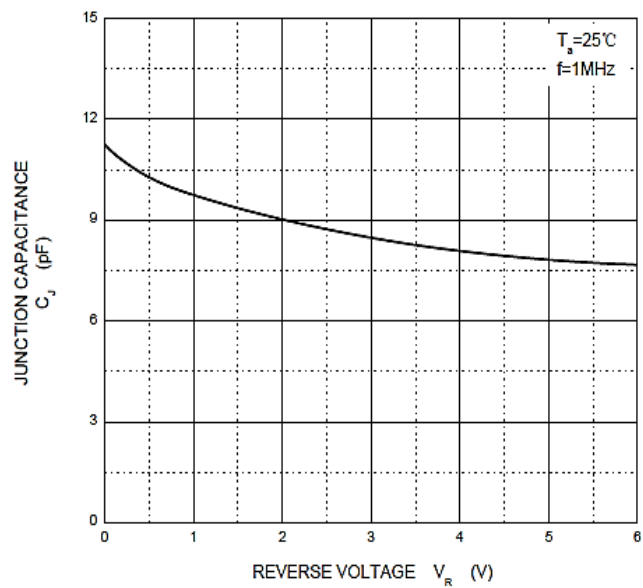
For capacitive load, derate current by 20%

Characteristics	Symbol	Min	Typ	Max	Unit
Peak Pulse Power, $t_p = 8 / 20 \text{ us}$ ( According to IEC61000-4-5 )	$P_{PK}$		50		W
Maximum Peak Pulse Current , $t_p = 8 / 20 \text{ us}$ ( According to IEC61000-4-5 )	$I_{PP}$		5		A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$		$\pm 30$		kV
ESD per IEC 61000-4-2 (Contact)			+25		kV
Operating Junction Temperature	$T_j$			150	°C
Storage Temperature	$T_{stg}$	-55		150	°C
Reverse Stand-Off Voltage	$V_{RWM}$			5	V
Reverse Breakdown Voltage , $I_t = +1\text{mA}$	$V_{BR}$			8	V
Reverse Leakage Current, $V_{RWM} = 5\text{V}$	$I_R$			0.1	$\mu\text{A}$
Clamping Voltage, $I_{pp} = 1\text{A}$ , $t_p = 8/20 \text{ us}$	$V_C$			7	V
Clamping Voltage, $I_{pp} = 5\text{A}$ , $t_p = 8/20 \text{ us}$				10	V
Junction Capacitance, Between I/O Pin and GND $V_R=0\text{V}$ , $f=1\text{MHz}$	$C_j$		10		pF
Dynamic Resistance <sup>1,2</sup> , $T_p=100\text{ns}$	$R_D$		0.13		$\Omega$

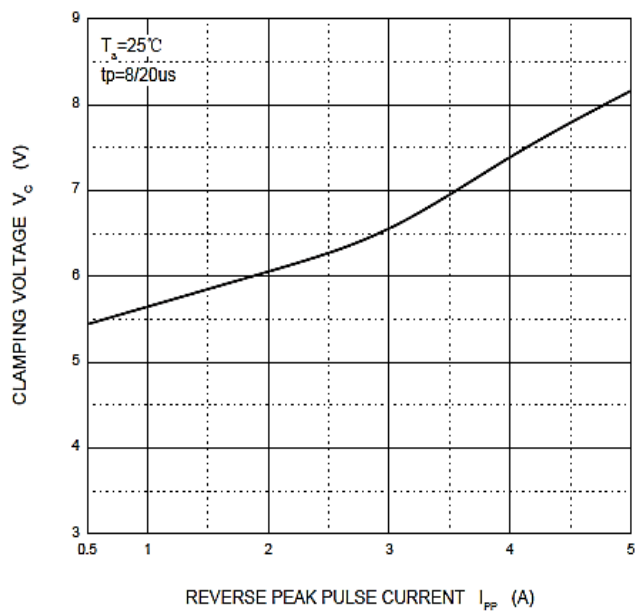
Reverse Characteristics



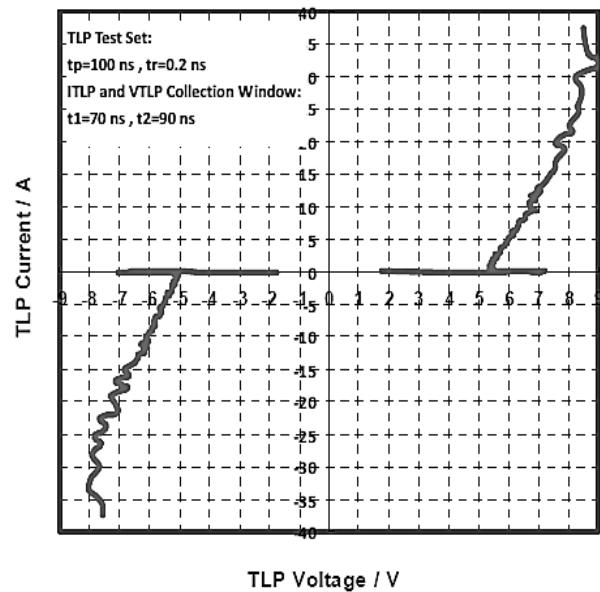
Capacitance Characteristics



$V_C$  —  $I_{PP}$

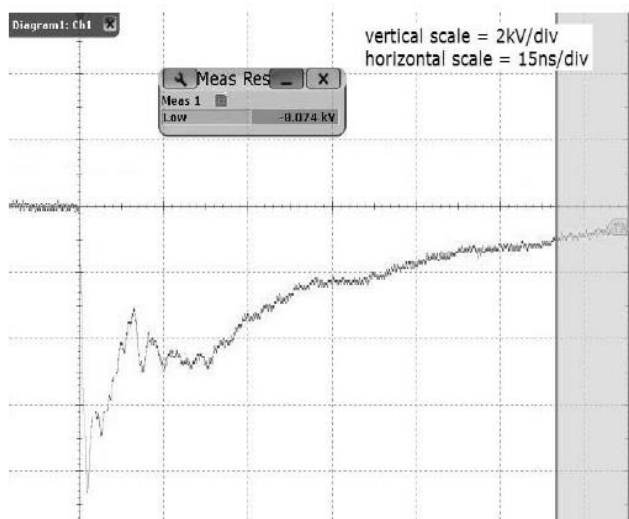


TLP Measurement

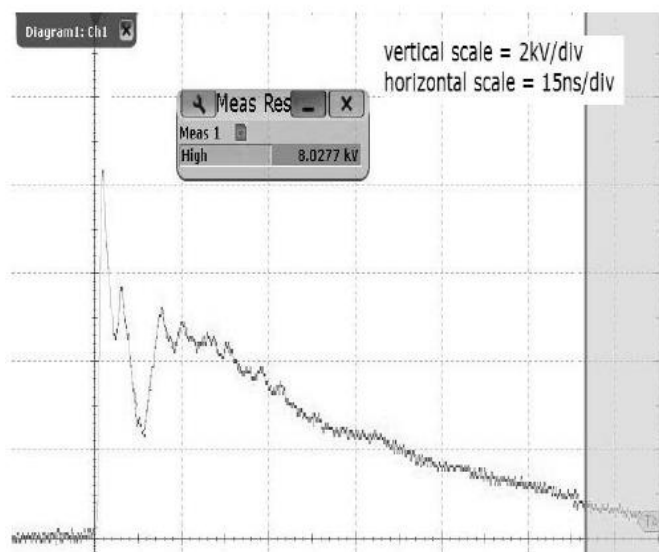


The curve above is for reference only.

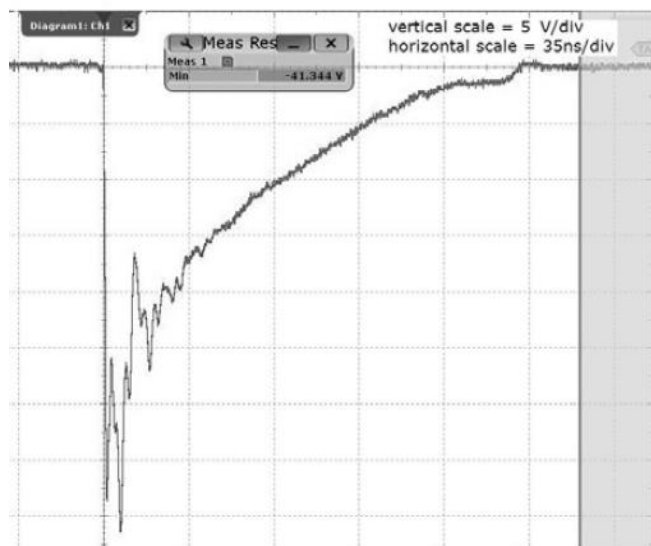
Unclamped -8 kV ESD pulse waveform  
(IEC 61000-4-2 network)



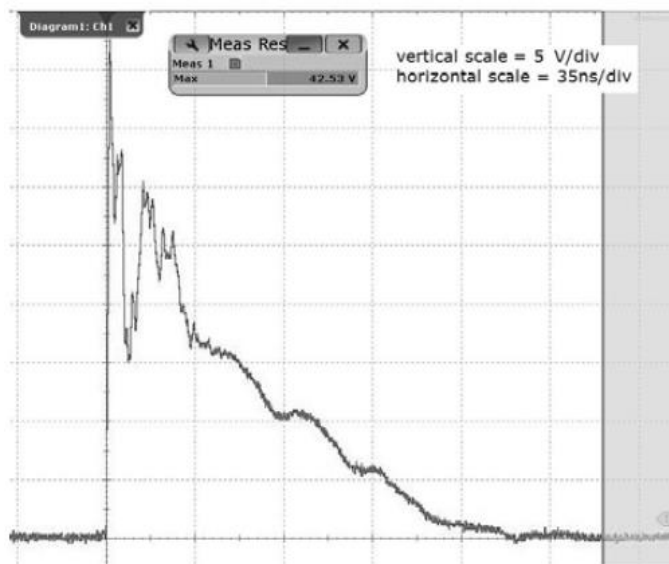
Unclamped +8 kV ESD pulse waveform  
(IEC 61000-4-2 network)



Clamped -8 kV ESD pulse waveform  
(IEC 61000-4-2 network)



Clamped +8 kV ESD pulse waveform  
(IEC 61000-4-2 network)



The curve above is for reference only.

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