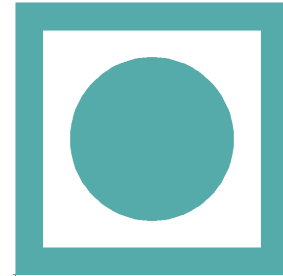


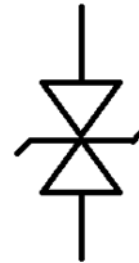
## Features

- 1-Channel Bi-directional ESD diode
- Low Operating Voltage: 5.0V
- Ultra Low Leakage: nA Level
- Low Clamping Voltage
- Response time is typically < 1 ns
- RoHS compliant
- Ultra Small Die Size, suitable for DFN1006 or DFN0603 package
- Complies with IEC 61000-4-2 standards:
  - Air discharge:  $\pm 30\text{kV}$
  - Contact discharge:  $\pm 30\text{kV}$

## Die Top-View



## Circuit Diagram



## Wafer Information

Item	Description
Wafer size	8 inch
Wafer thickness	$100 \pm 10\mu\text{m}$
Die Size (Include scribe lane)	$200\mu\text{m} \times 200\mu\text{m}$
Bond Pad Opening	$\varnothing 120\mu\text{m}$
Scribe lane width	$40\mu\text{m}$
Gross die per wafer	700,000 dies
Top metal for wire bond	$4\mu\text{m AlSiCu}$
Back side metal	TiNiAg

## Absolute Maximum Ratings (TA=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	$P_{pk}$	100	W
ESD per IEC61000-4-2 (Air)	$V_{ESD}$	±30	kV
ESD per IEC61000-4-2 (Contact)		±30	
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{stg}$	-55 to +150	°C

## Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	$V_{RWM}$			5.0	V	
Breakdown Voltage	$V_{BR}$	5.5	6.2	8	V	$I_T=1mA$
Snap-Back Voltage	$V_{PT}$		7		V	$I_{PT}=10nA$
Leakage Current	$I_{Leak}$	1		100	nA	$V_{RWM}=5.0V$
Clamping Voltage	$V_C$			8	V	$I_{PP}=1A, T_p=8/20\mu s$
Clamping Voltage	$V_C$			9	V	$I_{PP}=3A, T_p=8/20\mu s$
Clamping Voltage	$V_C$			13	V	$I_{PP}=8A, T_p=8/20\mu s$
Junction Capacitance	$C_J$		15	18	pF	$V_R=0V, f=1MHz$

**Note:** Electrical parameters are only for die, performance may alter after assembly.

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