

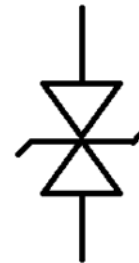
Features

- 1-Channel Bi-directional ESD diode
- Low Operating Voltage: 3.3 V
- 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	$150 \pm 10\mu\text{m}$
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}	60	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}			3.3	V	
Breakdown Voltage	V _{BR}	4.5	5.2	6.5	V	I _T =1mA
Snap-Back Voltage	V _{PT}		5.7		V	I _{PT} =10nA
Leakage Current	I _{Leak}	1		100	nA	V _{RWM} =3.3V
Clamping Voltage	V _C			7	V	I _{PP} =1A, T _p =8/20μs
Clamping Voltage	V _C			9	V	I _{PP} =8A, T _p =8/20μs
Junction Capacitance	C _J		15	20	pF	V _R =0V, f=1MHz

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

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