

Ultra Low Capacitance ESD Protection Diode

Primary characteristics		
Parameter	Value	Unit
Peak pulse power	60	W
Reverse breakdown voltage	5.6	V
Reverse stand-off voltage	5	V

Features

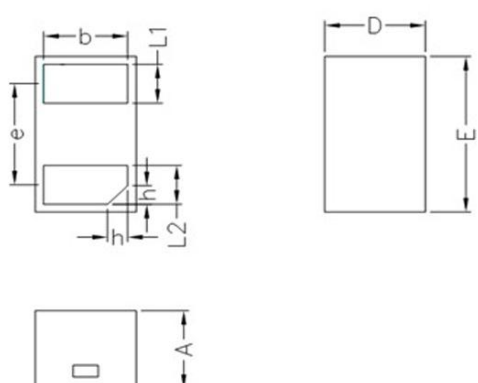
- Bidirectional configurations
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance ($C_j=0.2\text{pF typ.}$)
- Transient protection for high-speed data lines :
IEC 61000-4-2 $\pm 8\text{kV}$ contact $\pm 15\text{kV}$ air
IEC 61000-4-4 (EFT) 40A (5/50n s)

Applications

- Desktops, servers and notebooks
- Digital ports
- Cellular ports

Mechanical Data

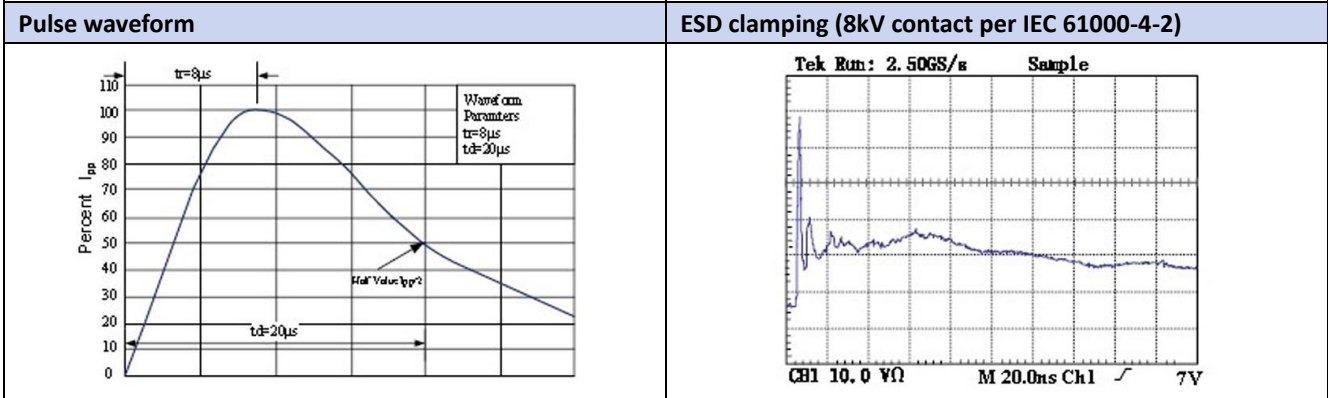
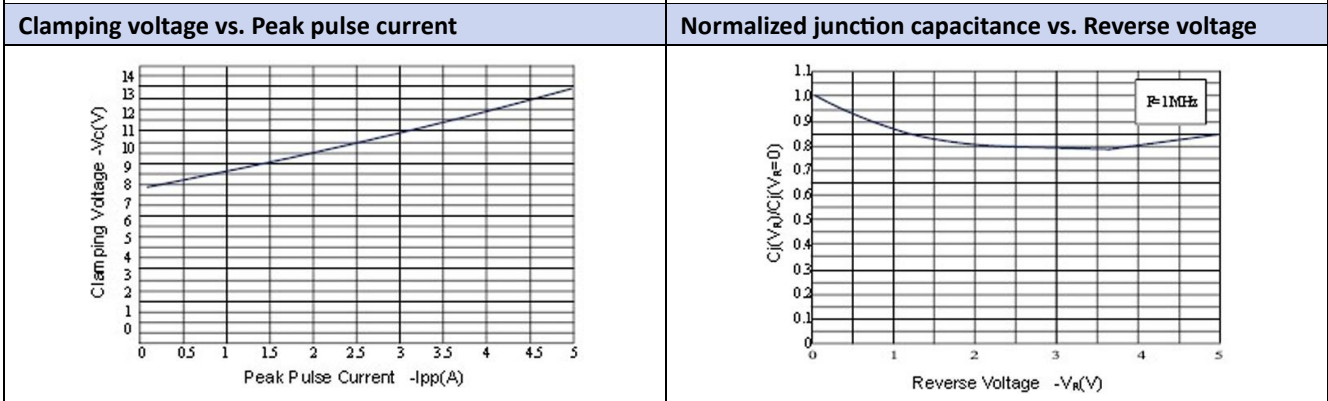
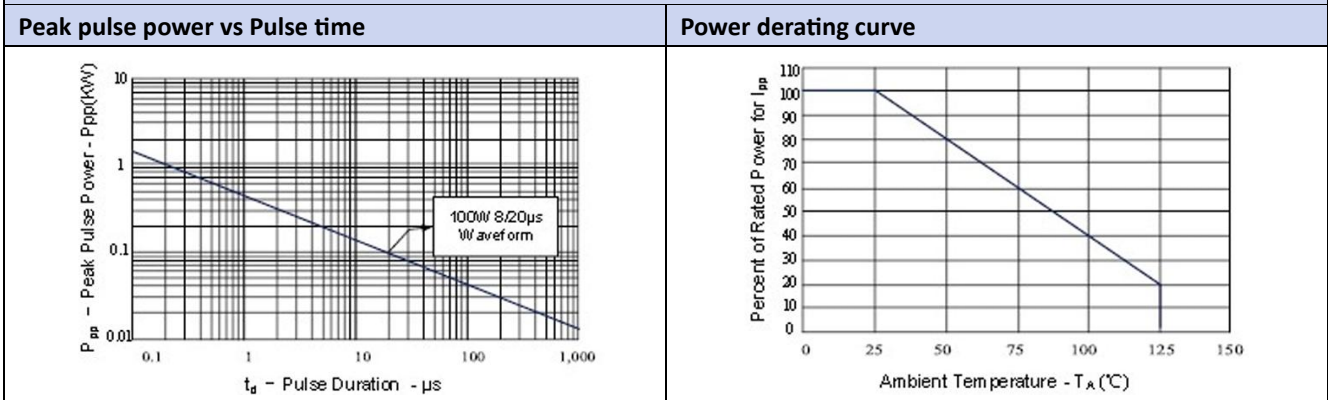
- **Case:** SOD-882 (plastic package).
- **Molding Compound Flammability Rating:** UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260°C/10s at terminals

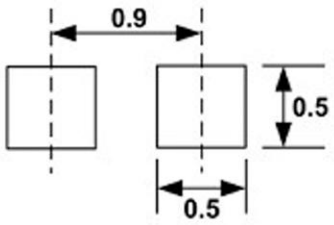
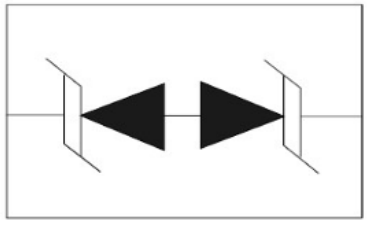
Case dimensions								
								
SOD-882								
Unit mm	D	E	L1	L2	b	e	A	h
MIN	0.55	0.95	0.20	0.20	0.45	0.65 BSC	0.45	0.07
NOM	0.60	1.00	0.25	0.25	0.50		0.50	0.12
MAX	0.65	1.05	0.30	0.30	0.55		0.55	0.17

Absolute maximum ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak pulse power (8/20 μs)	P_{PP}	60	W
ESD per IEC-61000-4-2 air	V_{ESD}	± 25	kV
ESD per IEC-61000-4-2 contact		± 20	
Junction temperature	T_J	-55 to +125	$^\circ\text{C}$
Storage temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics (T _A =25°C unless otherwise specified)						
Parameter	Symbol	Condition	Value			Unit
			Min	Typ	Max	
Reverse stand-off voltage	V _{RWM}	-	-	-	5.0	V
Reverse breakdown voltage	V _{BR}	I _T =1mA	5.6	-	-	
Reverse leakage current	I _R	V _R =5V	-	-	1	μA
Peak pulse current	I _{PP}	t _P =8/20μs	-	-	4	A
Clamping voltage	V _C	I _{PP} =1A, t _P =8/20μs	-	-	9.5	V
		I _{PP} =4A, t _P =8/20μs	-	-	15	
Junction capacitance	C _J	V _R =0V, f=1MHz	-	-	15	pF

Electrical characteristics curve


Pad dimensions	Internal circuit
 <p style="text-align: right;">Unit: mm</p>	

Ordering information				
Part Number	Package	Packaging option	Shipping Quantity	Dimensions
AK0801PB	DFN1006	Tape and reel	10 000 pcs / reel	---

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