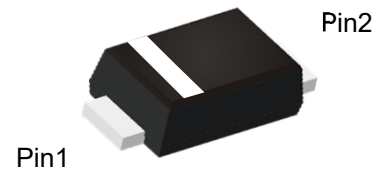


Feature

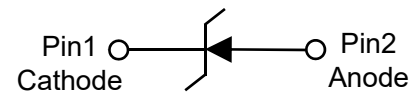
- Easy pick and place
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Superfast recovery times for high efficiency



SOD-123FL(Top View)

Mechanical Characteristics

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00053oz



Circuit Diagram

Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	PES2 AW	PES2 BW	PES2 CW	PES2 DW	PES2 EW	PES2 GW	PES2 JW	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T _C =125 °C	I _{F(AV)}	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	50							A
Peak Forward Surge Current 1.0 ms Single Half Sine Wave Superimposed on Rated Load		100							
Maximum Forward Voltage at 2 A	V _F	1.0				1.25		1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _a =25 °C	I _R	5.0						μA
	T _a =125 °C		100						
Typical Junction Capacitance ¹⁾	C _J	30				26		17	pF
Maximum Reverse Recovery Time ²⁾	t _{rr}	35							ns
Typical Thermal Resistance ³⁾	R _{θJA}	105							°C/W
	R _{θJC}	25							
	R _{θJL}	32							
Operating and Storage Temperature Range	T _J , T _{stg}	-55~+150							°C

Notes:

- 1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
- 2) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_{rr} = 0.25\text{ A}$.
- 3) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

Typical Characteristics

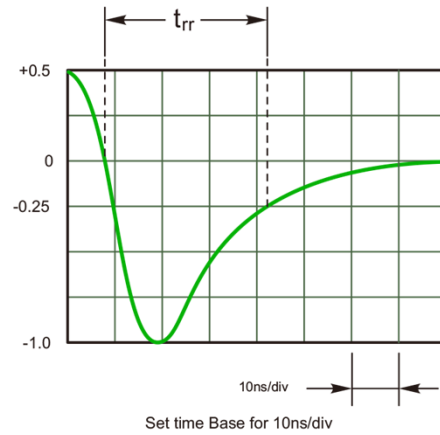
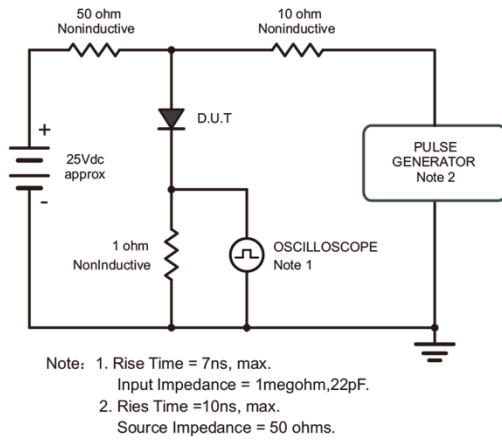


Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

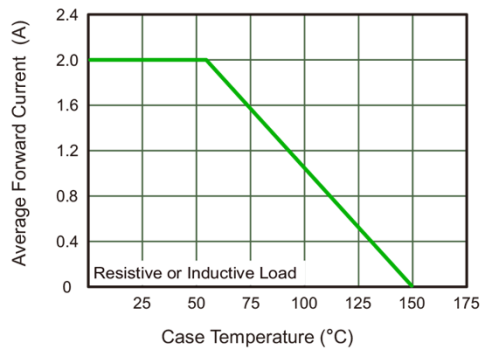


Fig.2 Maximum Average Forward Current Rating

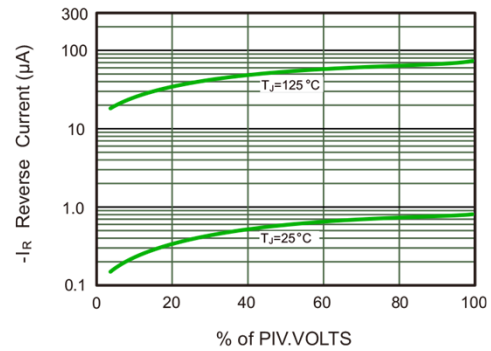


Fig.3 Typical Reverse Characteristics

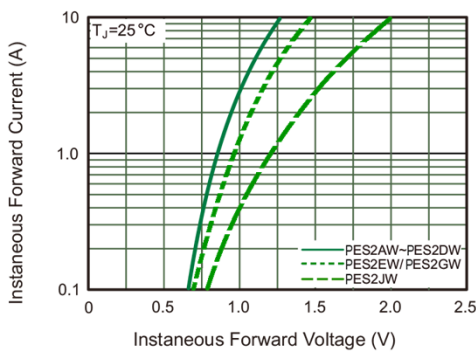


Fig.4 Typical Forward Characteristics

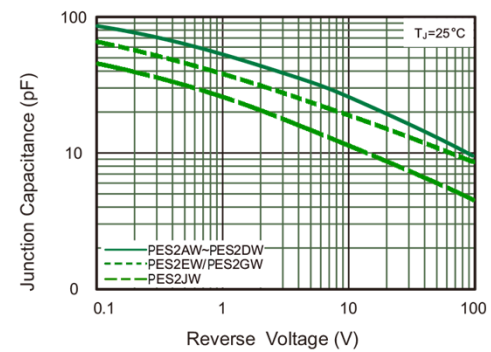


Fig.5 Typical Junction Capacitance

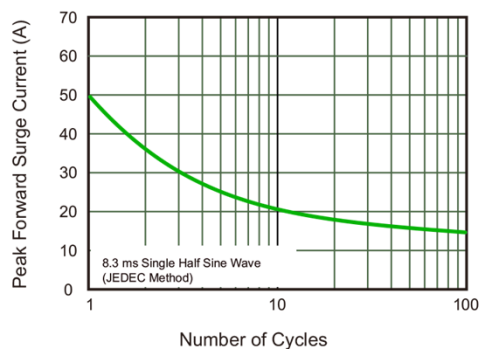
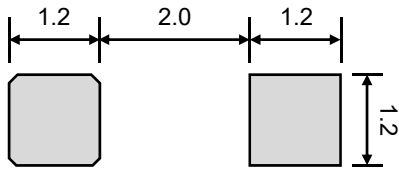
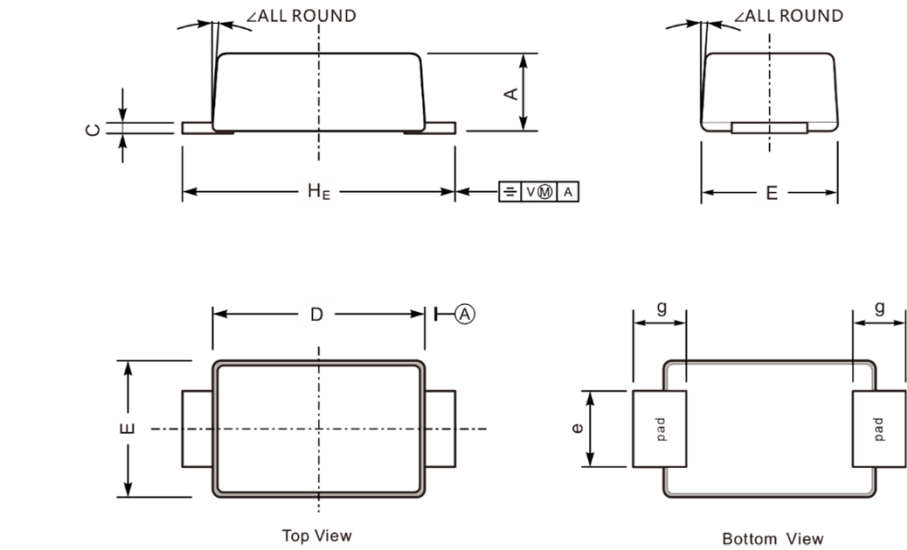


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

Surface Mount Superfast Recovery Rectifier

PES2xW_Series

Product dimension (SOD-123FL)



Suggested PCB Layout

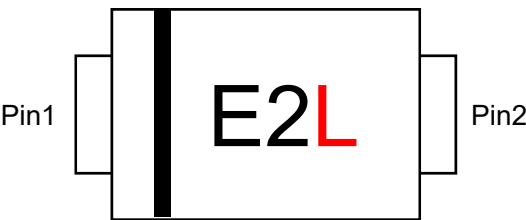
Unit: mm

Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.90	1.10	0.035	0.043
C	0.12	0.20	0.005	0.008
D	2.60	2.90	0.102	0.114
E	1.70	1.90	0.067	0.075
e	0.80	1.10	0.031	0.043
g	0.70	0.90	0.028	0.035
H _E	3.50	3.80	0.138	0.150
∠	7°			

Ordering information

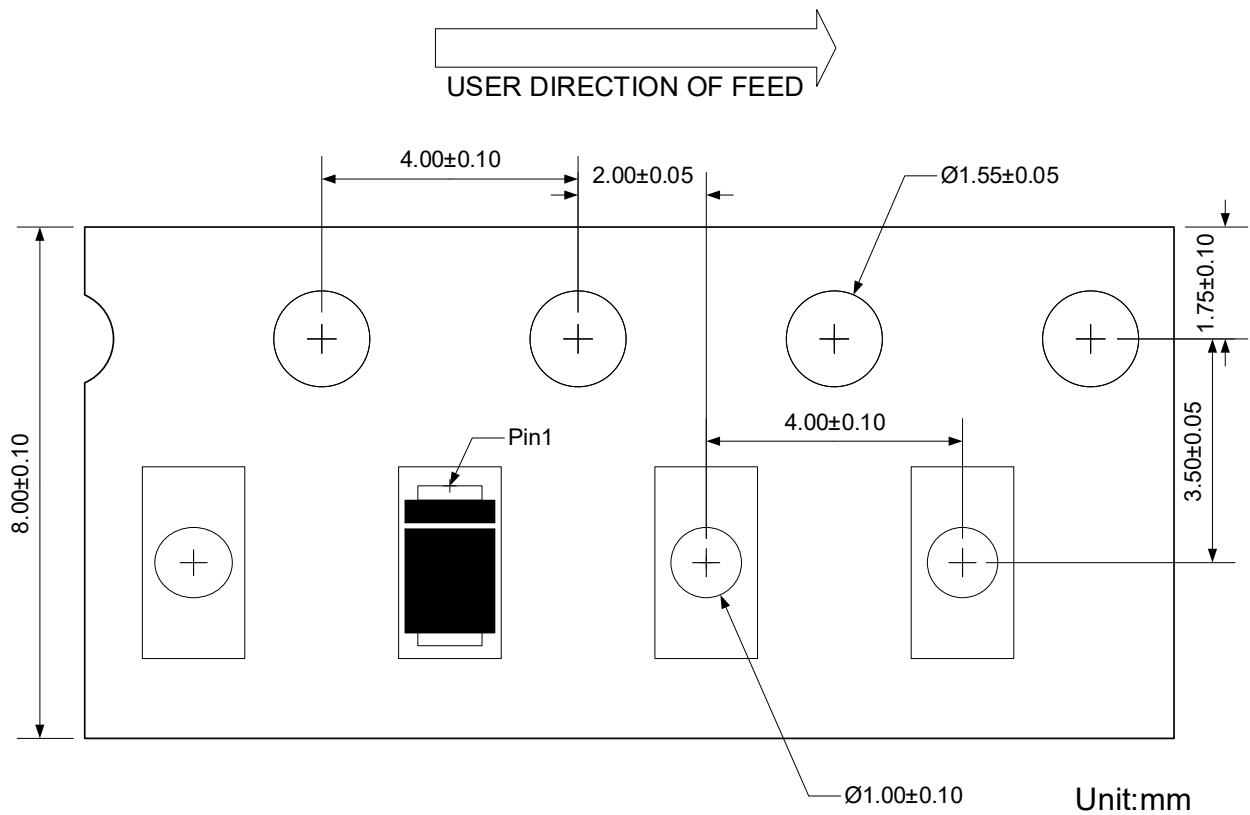
Package	Reel	Shipping
SOD-123FL	7"	3000 / Tape & Reel

Marking information




Device	Marking
PES2AW	E2L
PES2BW	
PES2CW	
PES2DW	
PES2EW	E2M
PES2GW	
PES2JW	E2H

Load with information




IMPORTANT NOTICE

 and **Prisemi**[®] are registered trademarks of **Prisemi Electronics Co., Ltd** (Prisemi), Prisemi reserves the right to make changes without further notice to any products herein. Prisemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Prisemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. “Typical” parameters which may be provided in Prisemi data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including “Typicals” must be validated for each customer application by customer’s technical experts. Prisemi does not convey any license under its patent rights nor the rights of others. The products listed in this document are designed to be used with ordinary electronic equipment or devices, Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Website: <http://www.prisemi.com>

For additional information, please contact your local Sales Representative.

©Copyright 2009, Prisemi Electronics

 **Prisemi**[®] is a registered trademark of Prisemi Electronics.

All rights are reserved.