



Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current - 2.0A

#### Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View  
Simplified outline SOD-123FL and symbol

#### MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg / 0.00048oz

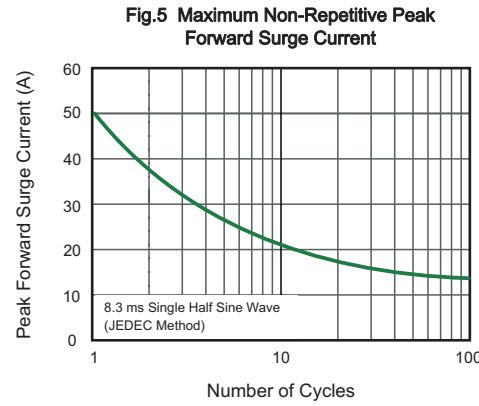
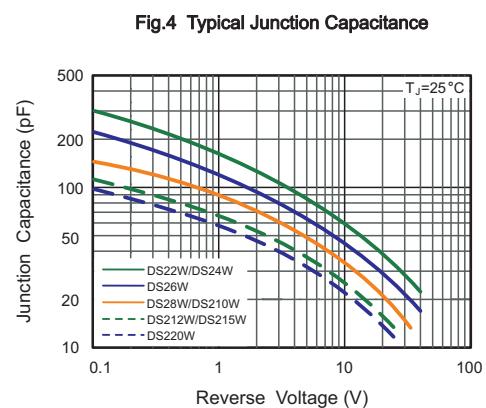
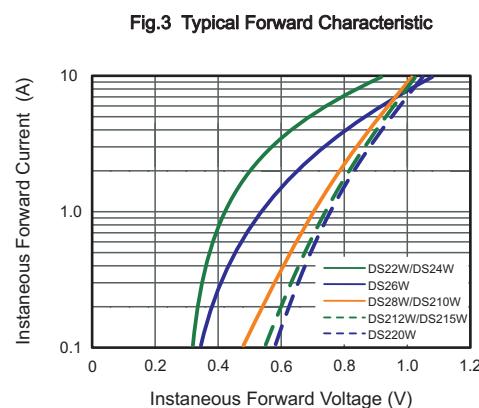
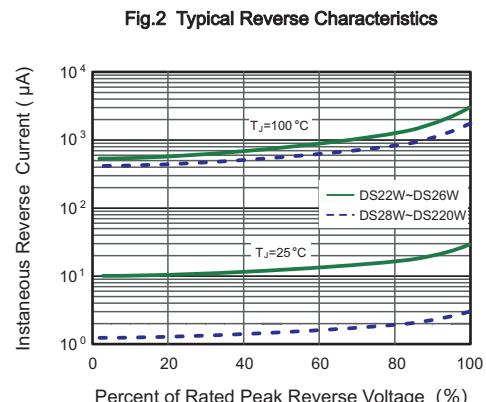
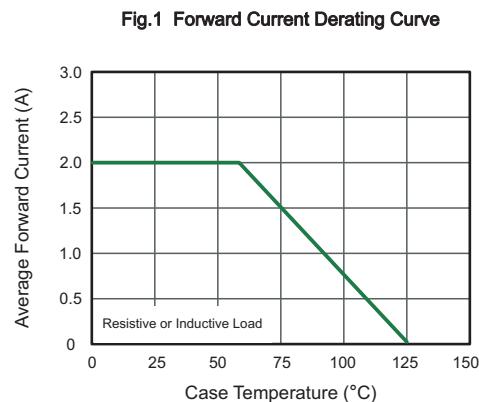
#### Absolute Maximum Ratings and Electrical characteristics

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

Parameter	Symbols	DS22W	DS24W	DS26W	DS28W	DS210W	DS212W	DS215W	DS220W	Units				
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	120	150	200	V				
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	84	105	140	V				
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	120	150	200	V				
Maximum Average Forward Rectified Current @ Fig.1	$I_{F(AV)}$	2.0							A					
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50							A					
Peak Forward Surge Current, 1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	100							A					
$I^2t$ Rating for fusing (3ms $\leq t \leq$ 8.3ms)	$I^2t$	10.3							$A^2S$					
Max Instantaneous Forward Voltage at 2 A	$V_F$	0.55		0.70		0.85		0.95		V				
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Reverse Voltage $T_a = 100^\circ C$	$I_R$	0.5 5		0.3 3						mA				
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	93		70		53		40		pF				
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta IL}$	105 25 32							°C/W					
Operating Junction Temperature Range	$T_j$	-55 ~ +125							°C					
Storage Temperature Range	$T_{stg}$	-55 ~ +150							°C					

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C.

(2) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

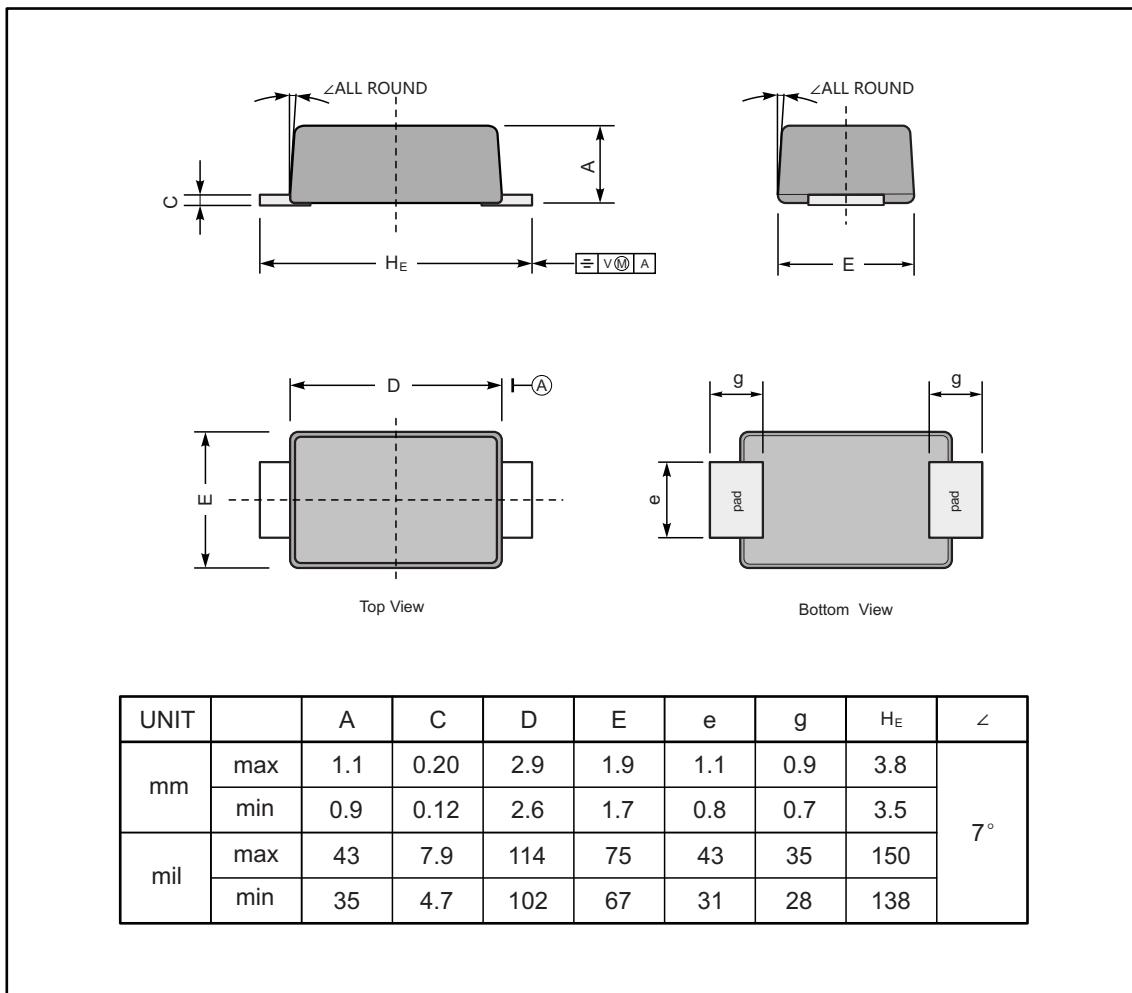




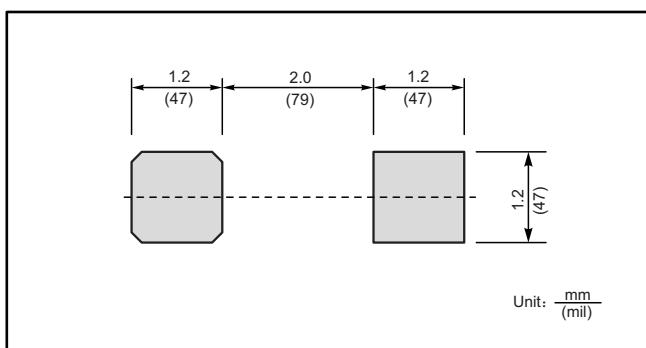
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



### The recommended mounting pad size



### Marking

Type number	Marking code
DS22W	S22
DS24W	S24
DS26W	S26
DS28W	S28
DS210W	S210
DS212W	S212
DS215W	S215
DS220W	S220



### Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any time without notice.

Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.