DS22W~DS220W

ROHS

Surface Mount Schottky Barrier Rectifier

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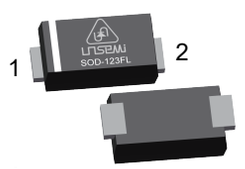
Features

- ◆ 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

Mechanical Data

- ◆ Case: SOD-123FL
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Approx. Weight : 15mg/0.00048oz
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026

SOD-123FL



1：Cathode

2：Anode

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter		Symbol	DS 22W	DS 24W	DS 26W	DS 28W	DS 210W	DS 212W	DS 215W	DS 220W	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		$I_{F(AV)}$	2.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	50								A
Max Instantaneous Forward Voltage at 2A		V_F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current at Rated DC Reverse Voltage	Ta=25℃	I_R	0.5			0.3					mA
	Ta=100℃	I_R	5.0			3.0					
Typical Junction Capacitance (1)		Cj	220		80						pF
Typical Thermal Resistance (2)		$R_{\theta JA}$	85								℃/W
Operating Junction Temperature Range		TJ	-55 ~ +125								℃
Storage Temperature Range		Tstg	-55 ~ +150								℃

Note:(1) Measured at 1 MHz and applied reverse voltage of 4VDC.

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5cm) copper pad areas.

Electrical Characteristics Curves

Fig.1 Forward Current Derating Curve

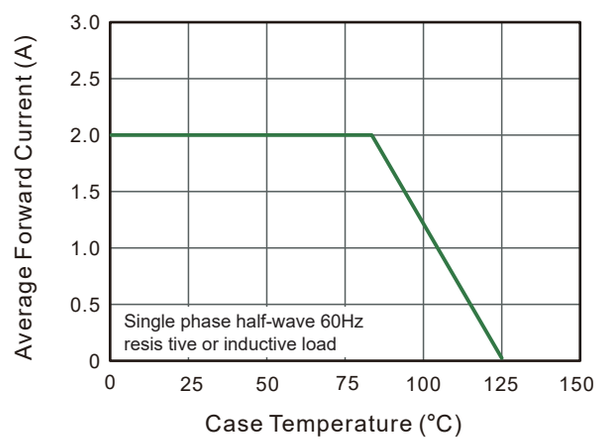


Fig. 2 Typical Reverse Characteristics

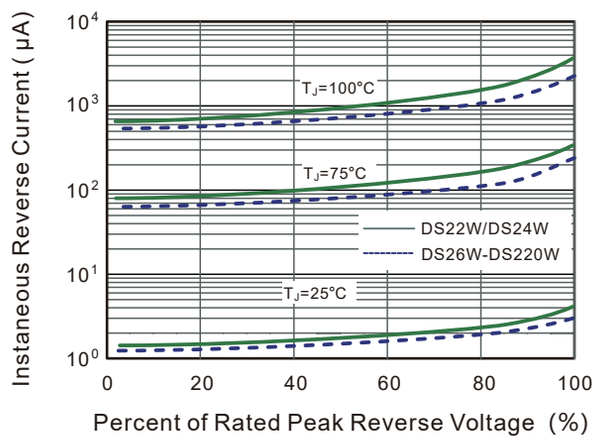


Fig.3 Typical Forward Characteristic

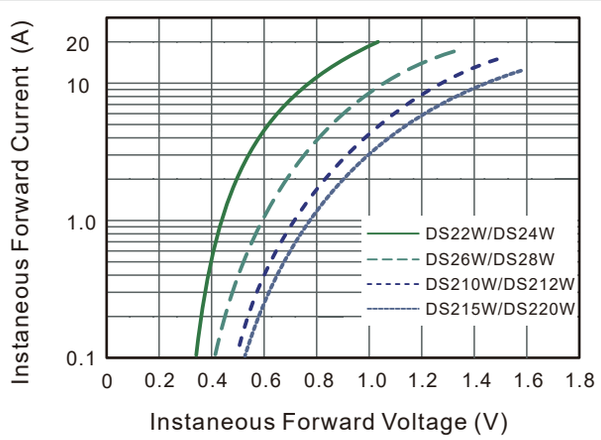


Fig. 4 Typical Junction Capacitance

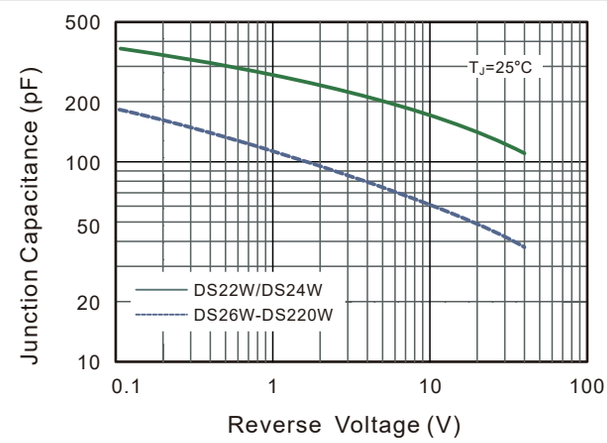


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

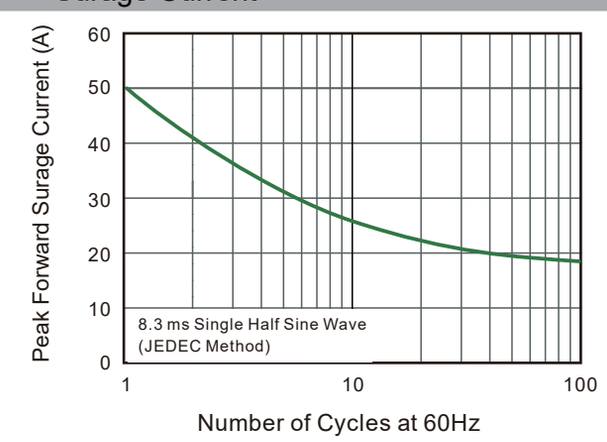
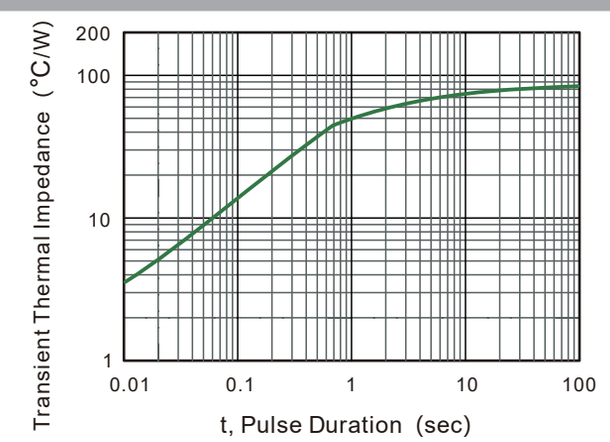
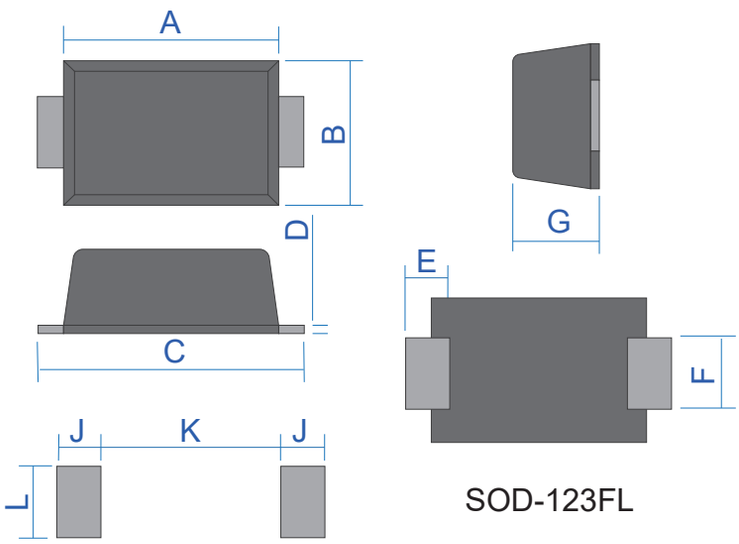


Fig. 6 Typical Transient Thermal Impedance



Package Outline & Dimensions



SOD-123FL

Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	2.60	3.00	0.102	0.118
B	1.60	2.00	0.063	0.079
C	3.45	3.95	0.136	0.156
D	0.10	0.25	0.004	0.010
E	0.30	0.90	0.012	0.035
F	0.80	1.20	0.031	0.047
G	0.95	1.35	0.037	0.053
J	1.30		0.051	
K		1.70		0.067
L	1.30		0.051	

Marking

Type Number	DS22W	DS24W	DS26W	DS28W	DS210W	DS212W	DS215W	DS220W
Making	K22	K24	K26	K28	K210	K212	K215	K220

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