




Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 20 to 200 V
Forward Current - 3.0A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: DS32W ---K32
DS34W ---K34
DS36W ---K36
DS38W ---K38
DS310W ---K310
DS312W ---K312
DS315W ---K315
DS320W ---K320
Simplified outline SOD-123FL and symbol

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
- 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	DS32W	DS34W	DS36W	DS38W	DS310W	DS312W	DS315W	DS320W	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	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80				70				A
Max Instantaneous Forward Voltage at 3 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 10	0.3 5				mA			
Typical Junction Capacitance ¹⁾	C_j	250	160				pF			
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	65								$^\circ C/W$
Operating Junction Temperature Range	T_j	-55 ~ +125								$^\circ C$
Storage Temperature Range	T_{stg}	-55 ~ +150								$^\circ C$

1) Measured at 1MHz 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.



Fig.1 Forward Current Derating Curve

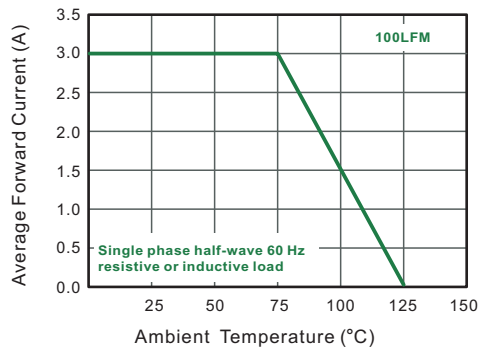


Fig.2 Typical Reverse Characteristics

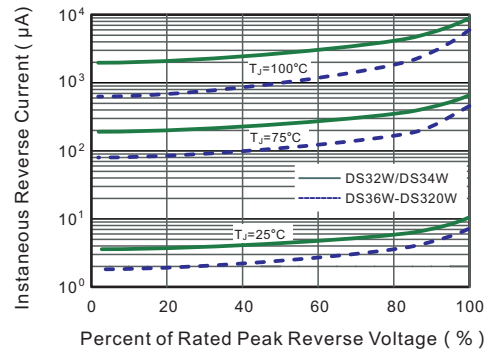


Fig.3 Typical Forward Characteristic

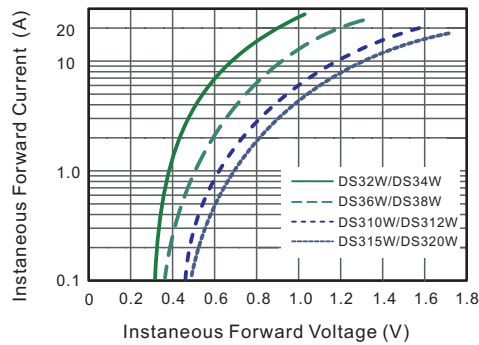


Fig.4 Typical Junction Capacitance

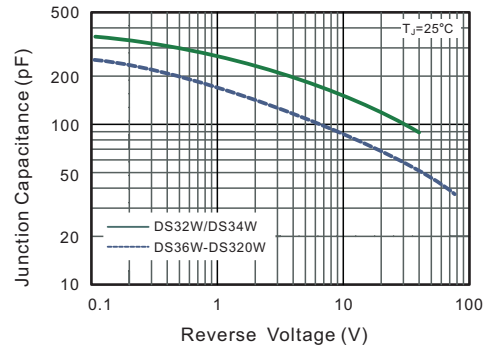


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

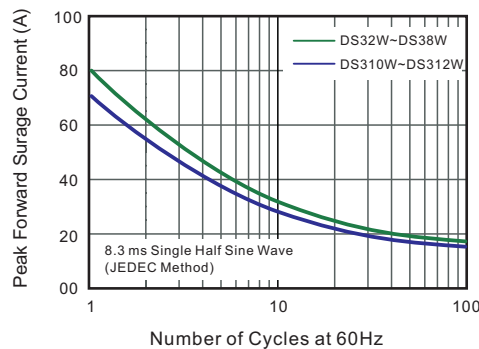
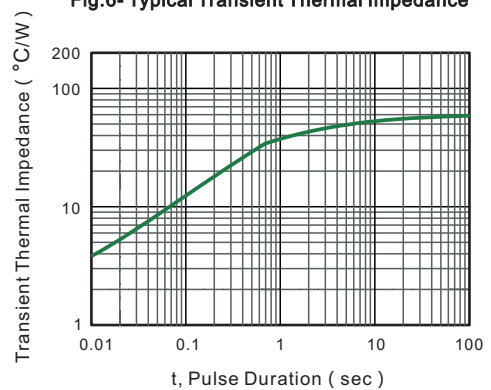


Fig.6- Typical Transient Thermal Impedance

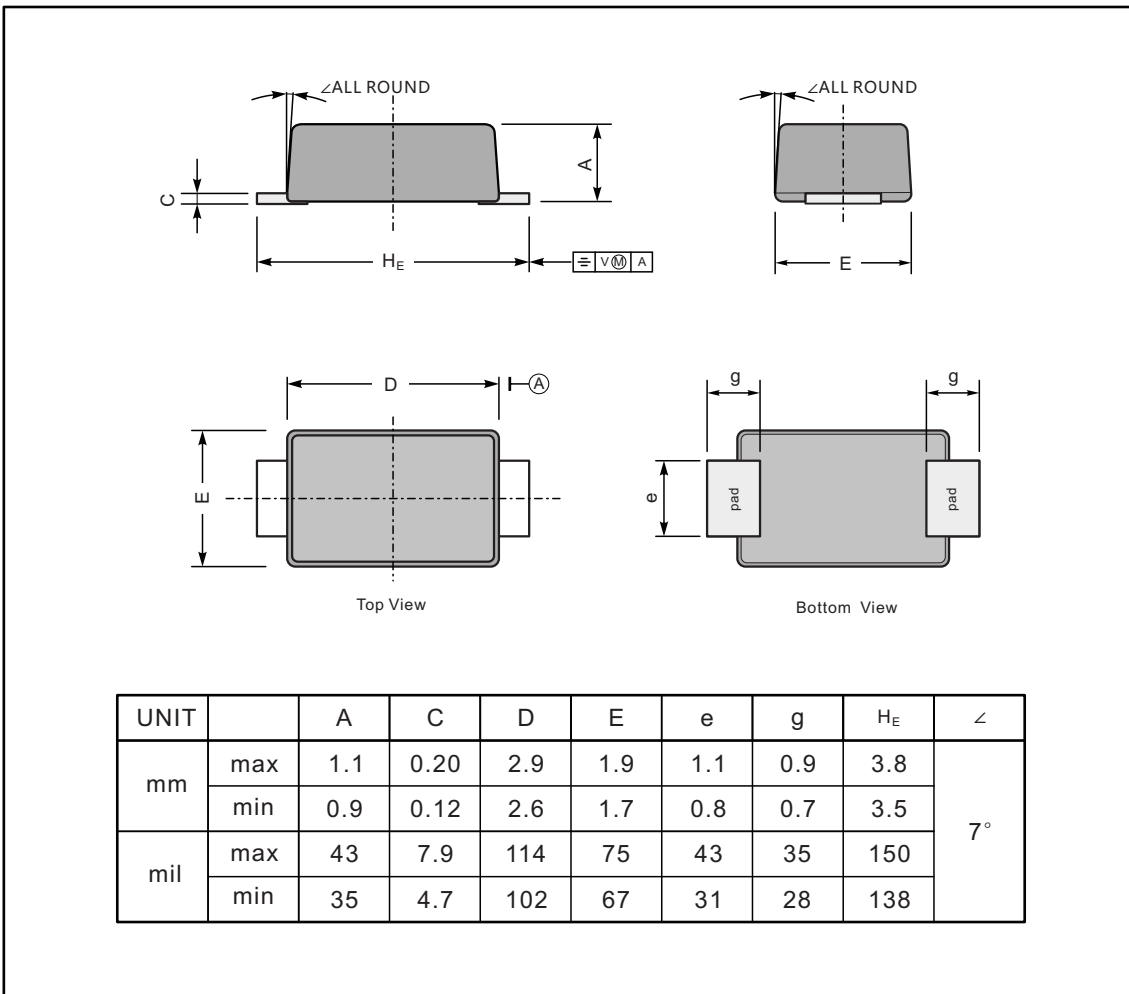




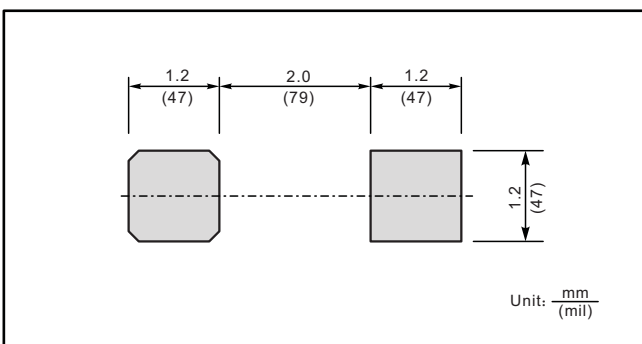
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



The recommended mounting pad size



Marking

Type number	Marking code
DS32W	K32
DS34W	K34
DS36W	K36
DS38W	K38
DS310W	K310
DS312W	K312
DS315W	K315
DS320W	K320

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