

DS12FL-AT THRU DS120FL-AT

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Forward Current-1.0A

Reverse Voltage-20V to 200V

FEATURES

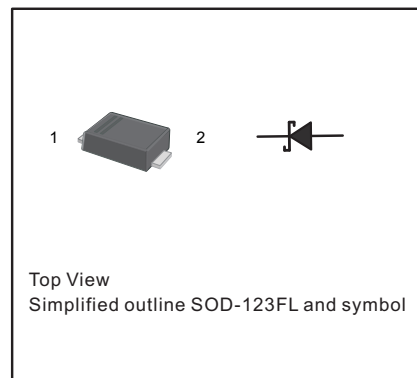
- ◆ For surface mount applications
- ◆ High forward surge current capability
- ◆ Low power loss,high efficiency
- ◆ Metal silicon junction,majority carriers conduction

MECHANICAL DATA

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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 current derating by 20 %.

PARAMETER	SYMBOL	DS12FL -AT	DS14FL -AT	DS16FL -AT	DS18FL -AT	DS110FL -AT	DS112FL -AT	DS115FL -AT	DS120FL -AT	UNIT
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 at T _C =85°C	I _{F(AV)}	1.0								A
Peak Forward Surge Current (Note1)	I _{FSM}	40				30				A
Maximum Forward Voltage at 1.0 A	V _F	0.55		0.70		0.85		0.90		V
Maximum DC Reverse Current at Rated DC Blocking Voltage at T _A =25°C T _A =100°C	I _R	0.3 10				0.2 5		0.1 2		mA
Typical Junction Capacitance(Note2)	C _J	110		80						pF
Typical Thermal Resistance(Note3)	R _{θJA}	100								°C/W
Operating and Storage Temperature Range	T _J	-55 to +125								°C
Storage Temperature Range	T _{STG}	-55 to +150								°C

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

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

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

Dated: 02/2018

Rev:1.0

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

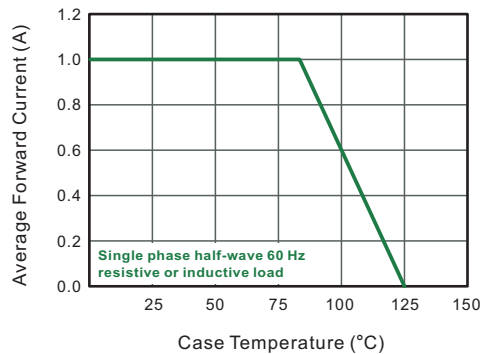


Fig.2 Typical Reverse Characteristics

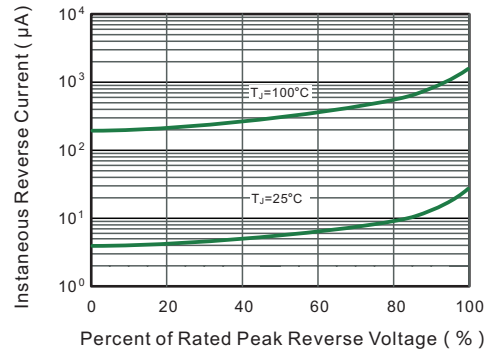


Fig.3 Typical Forward Characteristic

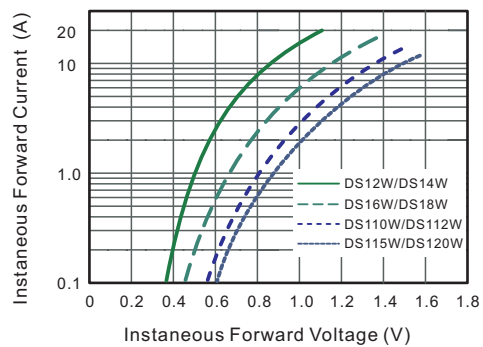


Fig.4 Typical Junction Capacitance

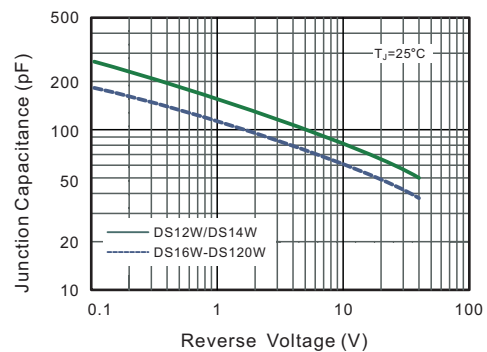


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

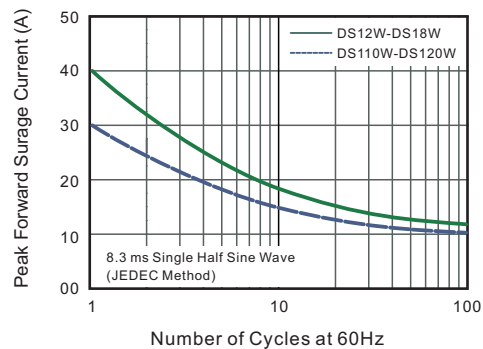
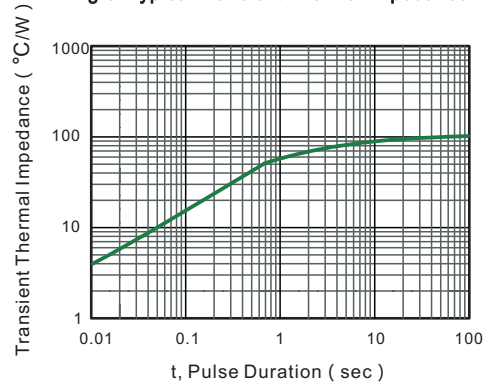


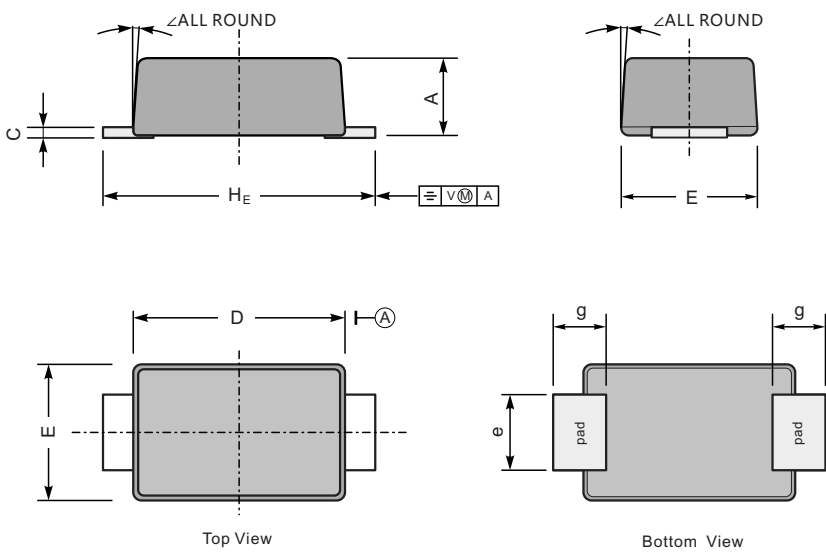
Fig.6- Typical Transient Thermal Impedance



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PACKAGE OUTLINE

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size

