

# SDS1630LF

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 60 V

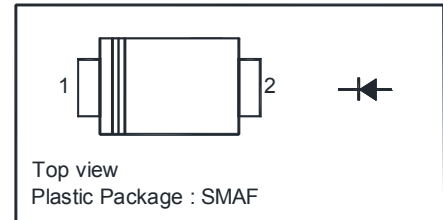
Forward Current - 1 A

### 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



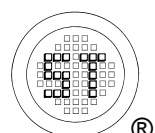
### Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	60	V
Maximum RMS Voltage	$V_{RMS}$	42	V
Maximum DC Blocking Voltage	$V_{DC}$	60	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30	A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	0.5	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.2 5	mA
Typical Junction Capacitance <sup>1)</sup>	$C_j$	50	pF
Typical Thermal Resistance, Junction to Ambient <sup>2)</sup>	$R_{\theta JA}$	85	°C/W
Operating Junction Temperature Range	$T_j$	- 55 to + 125	°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150	°C

<sup>1)</sup> Measured at 1MHz and applied reverse voltage of 4 V D.C.

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



## Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

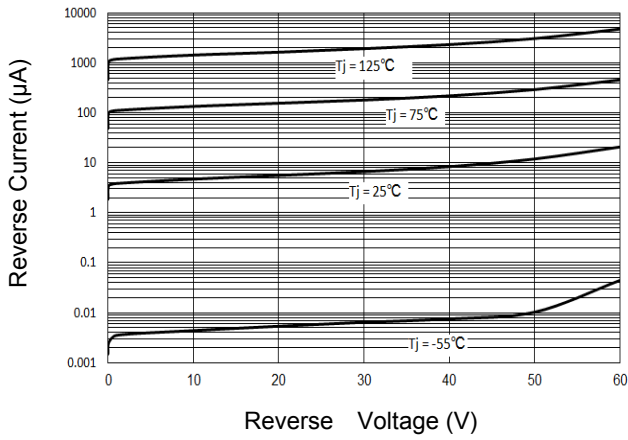


Fig 2. Forward Characteristics Curve

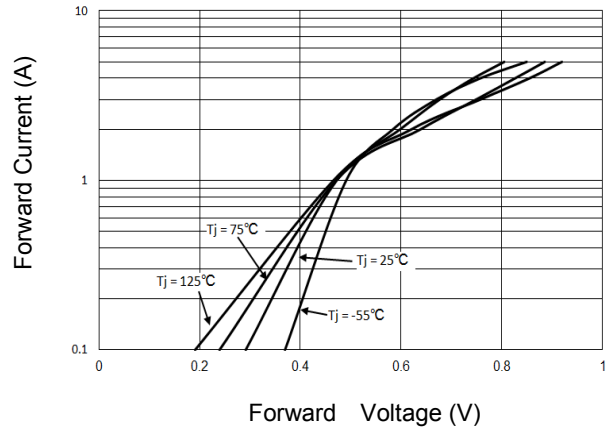


Fig 3. Junction Capacitance

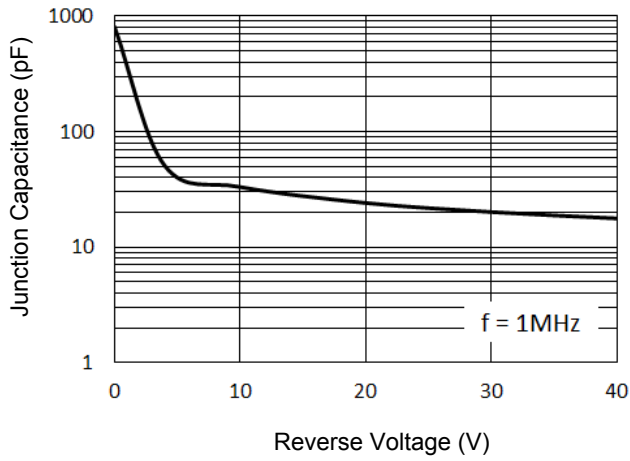
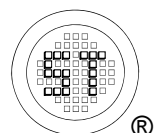
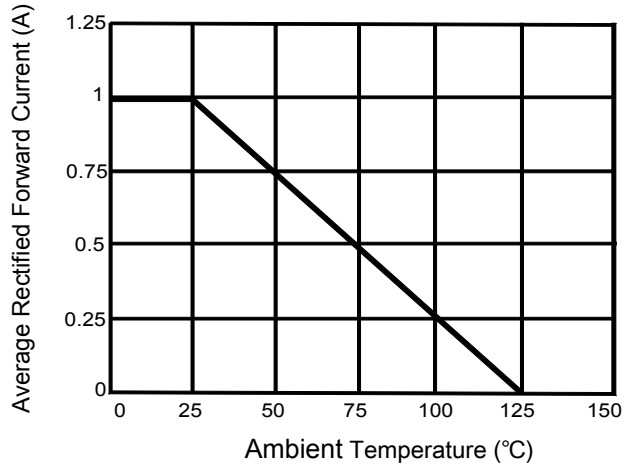


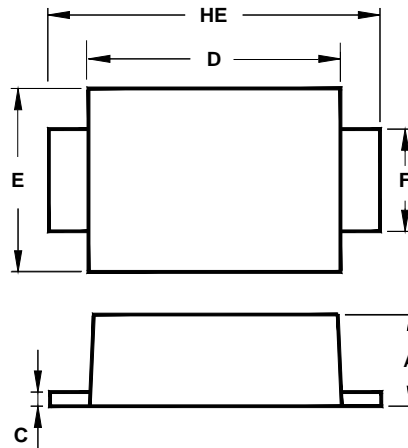
Fig 4. Average Forward Current Derating Curve



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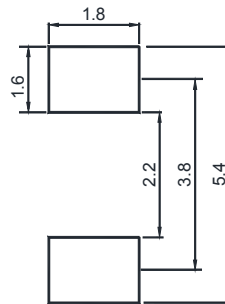
## Package Outline Dimensions (Units: mm)

SMAF



UNIT	A	C	D	E	F	H <sub>E</sub>
mm	1.1	0.2	3.7	2.80	1.6	4.9
	0.9	0.12	3.3	2.40	1.3	4.4

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SMAF	12	4 ± 0.1	(0.157 ± 0.004)	178	7	3,000
				330	13	10,000

## Marking information

"SSL16" = Part No.

"III" = Cathode line

"YYWW" = Date Code Marking

"Y" = Year

"W" = Week

Font type: Arial



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