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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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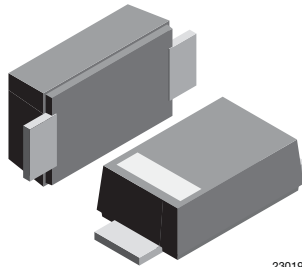
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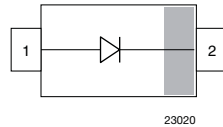


Schottky Rectifier Surface Mount

eSMP® Series



SMF (DO-219AB)



23020

DESIGN SUPPORT TOOLS

[click logo to get started](#)


MECHANICAL DATA

Case: SMF (DO-219AB)

Polarity: color band denotes cathode end

Weight: approx. 15 mg

Packaging codes / options:

18/10K per 13" reel (8 mm tape), 50K/box

08/3K per 7" reel (8 mm tape), 30K/box

Circuit configuration: single

FEATURES

- For surface mounted applications
- Low-profile package
- Ideal for automated placement
- Low power loss, high efficiency
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Meets JESD 201 class 2 whisker test
- Wave and reflow solderable
- AEC-Q101 qualified available
- Base P/N-E3 - RoHS-compliant, and commercial grade
- Base P/N-HE3 - RoHS-compliant, and AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


**RoHS
COMPLIANT**

TYPICAL APPLICATIONS

For use in high frequency inverters, freewheeling, DC/DC converters, and polarity protection in commercial, industrial, and automotive applications.

PARTS TABLE

PART	ORDERING CODE	MARKING	REMARKS
SL04	SL04-E3-18 or SL04-E3-08 SL04-HE3-18 or SL04-HE3-08	S4	Tape and reel

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ °C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	40	V
Maximum average forward rectified current (fig. 4)		$I_{F(AV)}$	1.1	A
Peak forward surge current 8.3 ms single half sine-wave $T_{J(init)} = 25\text{ °C}$		I_{FSM}	40	A

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ °C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to lead		R_{thJL}	22	K/W
Thermal resistance junction to ambient air ⁽¹⁾		R_{thJA}	180	K/W
Junction temperature in DC forward current without reverse bias		T_j	175	°C
Storage temperature range		T_{stg}	-55 to +175	°C

Note

⁽¹⁾ Mounted on epoxy substrate with 3 mm x 3 mm Cu pads ($\geq 40\text{ }\mu\text{m}$ thick)

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)						
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT
Instantaneous forward voltage	$I_F = 0.5\text{ A}$	$T_J = 25\text{ }^{\circ}\text{C}$	$V_F^{(1)}$	0.41	0.47	V
	$I_F = 1.1\text{ A}$			0.48	0.54	
	$I_F = 0.5\text{ A}$	$T_J = 100\text{ }^{\circ}\text{C}$		0.34	-	
	$I_F = 1.1\text{ A}$			0.43	-	
	$I_F = 0.5\text{ A}$	$T_J = 125\text{ }^{\circ}\text{C}$		0.31	-	
	$I_F = 1.1\text{ A}$			0.42	-	
Reverse current	$V_R = 40\text{ V}$	$T_J = 25\text{ }^{\circ}\text{C}$	I_R	10	20	μA
		$T_J = 100\text{ }^{\circ}\text{C}$		1.2	2.6	mA
		$T_J = 125\text{ }^{\circ}\text{C}$		4.5	13	mA
Typical junction capacitance	$V_R = 4.0\text{ V}$, 1 MHz		C_D	65	-	pF

Note

 (1) Pulse test: 300 μs pulse width, 1 % duty cycle

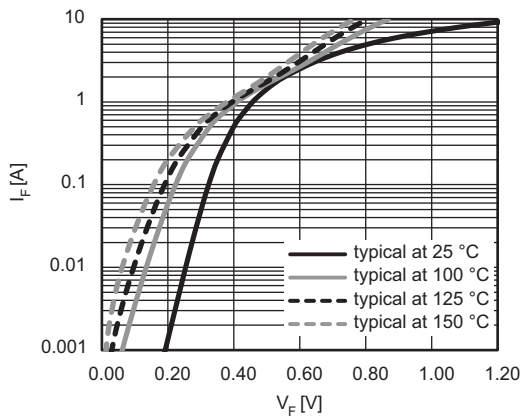
RATINGS AND CHARACTERISTICS CURVES ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)


Fig. 1 - Typical Forward Characteristics

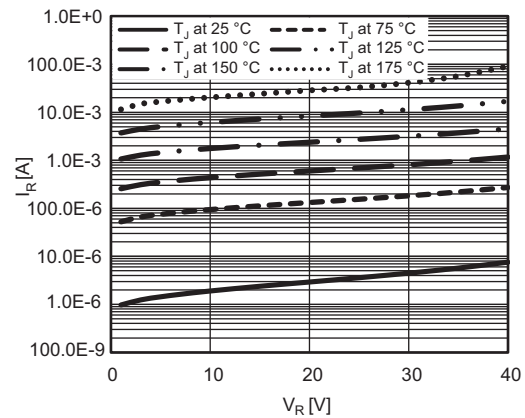


Fig. 3 - Typical Reverse Characteristics

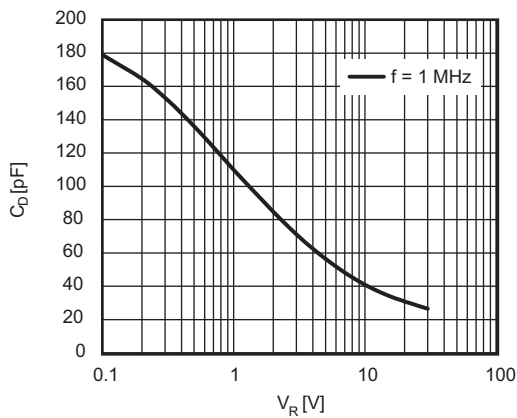


Fig. 2 - Typical Diode Capacitance vs. Reverse Voltage

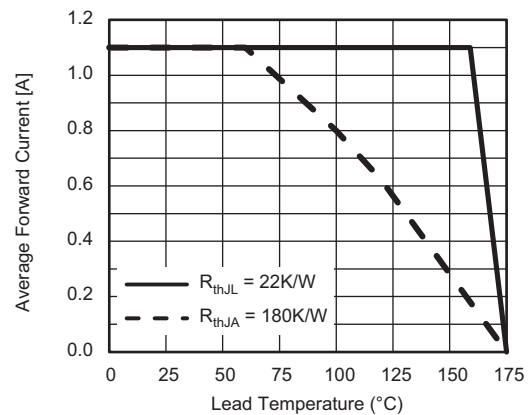


Fig. 4 - Forward Current Derating Curve

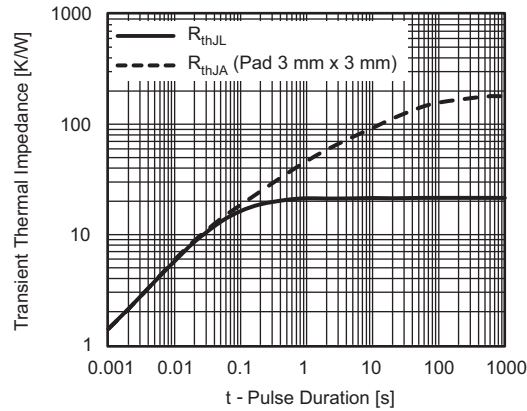
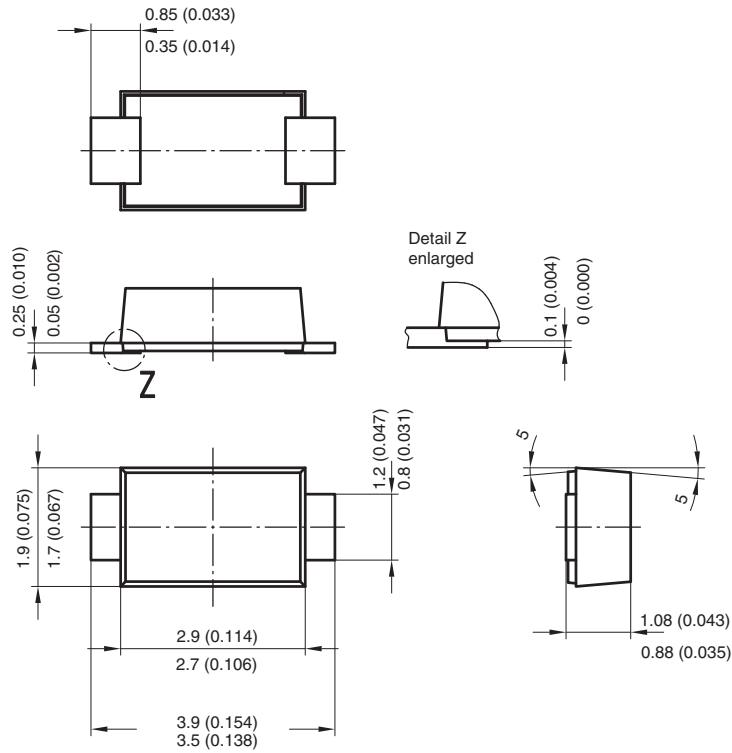
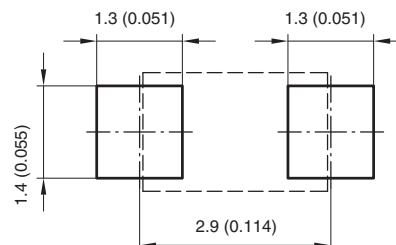


Fig. 5 - Typical Transient Thermal Impedance

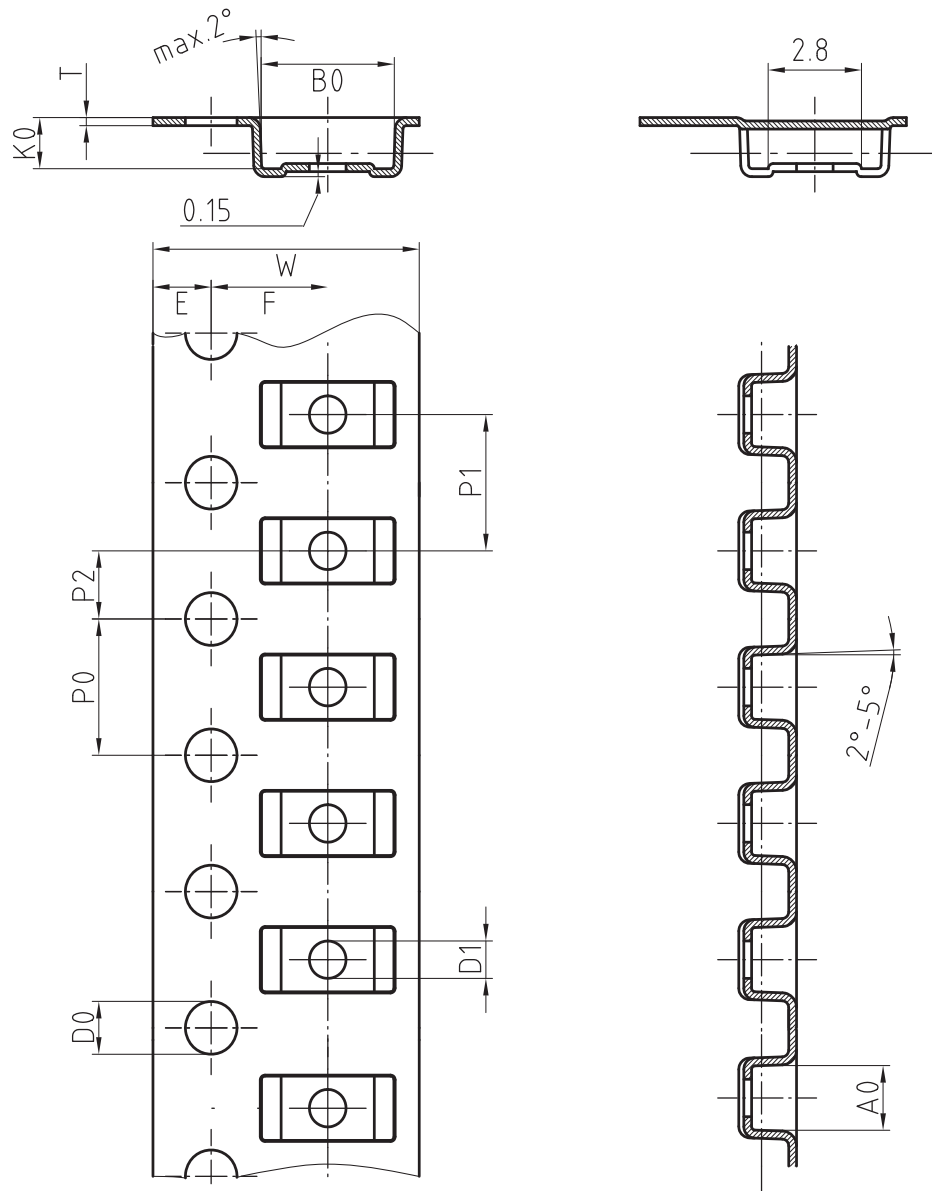
PACKAGE DIMENSIONS in millimeters (inches): **SMF (DO-219AB)**



Foot print recommendation:



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 17247

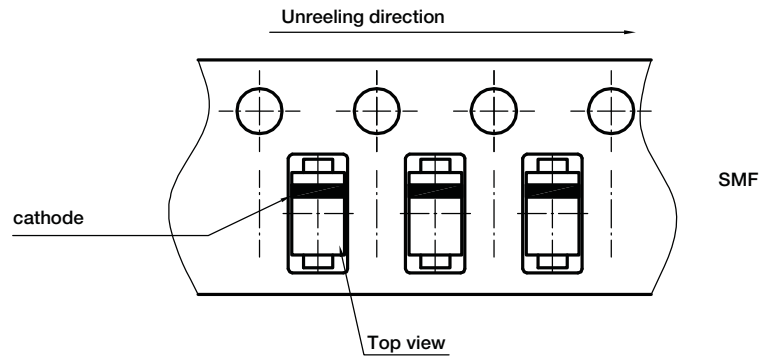
BLISTER TAPE DIMENSIONS in millimeters: **SMF (DO-219AB)**


Mat:	A0	B0	K0	W	T	P0	P2	P1	D0	D1	E	F
PS	1.9	4.0	1.5	8.0	0.235	4.0	2.0	4.0	1.5	1	1.75	3.5

Document-No.: S8-V-3717.02-001 (3)

18513

ORIENTATION IN CARRIER TAPE - SMF



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Created - Date: 09. Feb. 2010
22670



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