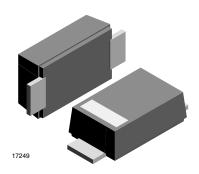
HALOGEN

FREE



Vishay Semiconductors

Schottky Rectifier Surface Mount



MECHANICAL DATA

Case: DO-219AB (SMF)

Polarity: color band denotes cathode end

Weight: approx. 15 mg

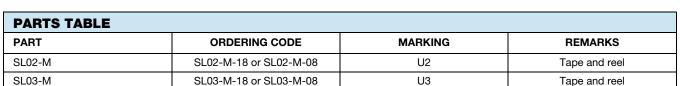
Packaging codes / options:

18/10K per 13" reel (8 mm tape), 50K/box 08/3K per 7" reel (8 mm tape), 30K/box

Int. construction: single

FEATURES

- · For surface mounted applications
- Low-profile package
- Ideal for automated placement
- · Low power loss, high efficiency
- Oxide planar chip junction
- 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
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>



ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)								
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT			
Maximum repetitive peak reverse voltage		SL02-M	V_{RRM}	20	V			
		SL03-M	V_{RRM}	30	V			
Maximum RMS voltage		SL02-M	V _{RMS}	14	V			
		SL03-M	V _{RMS}	21	V			
Maximum DC blocking voltage		SL02-M	V_{DC}	20	V			
		SL03-M	V_{DC}	30	V			
Maximum average forward rectified current	T _{tp} = 109 °C		I _{F(AV)}	1.1	А			
Peak forward surge current 8.3 ms single half sine-wave			I _{FSM}	40	А			

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Thermal resistance junction to ambient air (1)		R _{thJA}	180	K/W		
Maximum operating junction temperature		Tj	125	°C		
Storage temperature range		T _{stg}	-55 to +150	°C		

Note

⁽¹⁾ Mounted on epoxy substrate with 3 mm x 3 mm Cu pads (≥ 40 µm thick)



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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)								
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Instantaneous forward voltage	I _F = 0.5 A ⁽¹⁾	SL02-M	V_{F}		0.360	0.385	V	
		SL03-M	V_{F}		0.395	0.43	V	
Typical instantaneous forward voltage	I _F = 1.1 A	SL02-M	V_{F}		0.420		V	
		SL03-M	V _F		0.450		V	
Maximum DC reverse current at rated DC blocking voltage	T _A = 25 °C	SL02-M	I _R			250	μA	
	T _A = 100 °C	SL02-M	I _R			8	mA	
	T _A = 25 °C	SL03-M	I _R			130	μA	
	T _A = 100 °C	SL03-M	I _R			6	mA	
Reverse recovery time		SL02-M	t _{rr}			< 10	ns	
		SL03-M	t _{rr}			< 10	ns	

Note

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

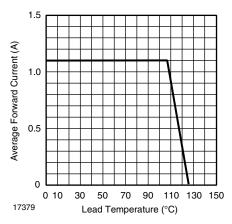


Fig. 1 - Forward Current Derating Curve

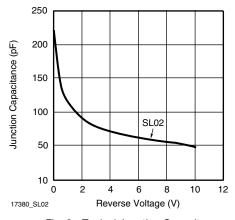


Fig. 2 - Typical Junction Capacitance

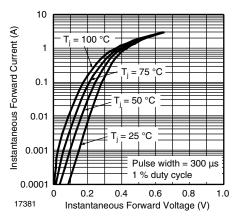


Fig. 3 - Typical Instantaneous Forward Characteristics - SL02

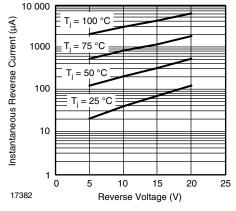
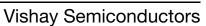


Fig. 4 - Typical Reverse Current Characteristics - SL02

 $^{^{(1)}}$ Pulse test: 300 μs pulse width, 1 % duty cycle





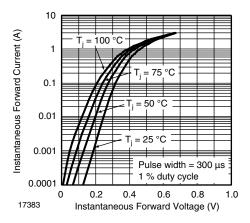


Fig. 5 - Typical Instantaneous Forward Characteristics - SL03

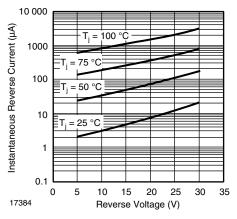
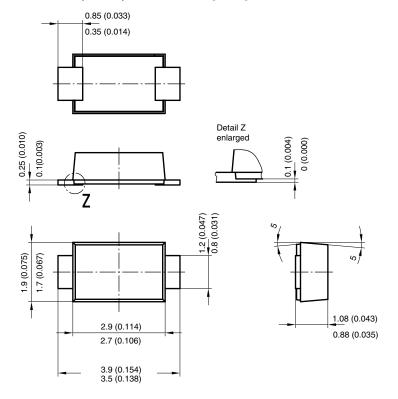
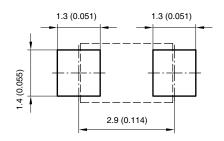


Fig. 6 - Typical Reverse Current Characteristics - SL03

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



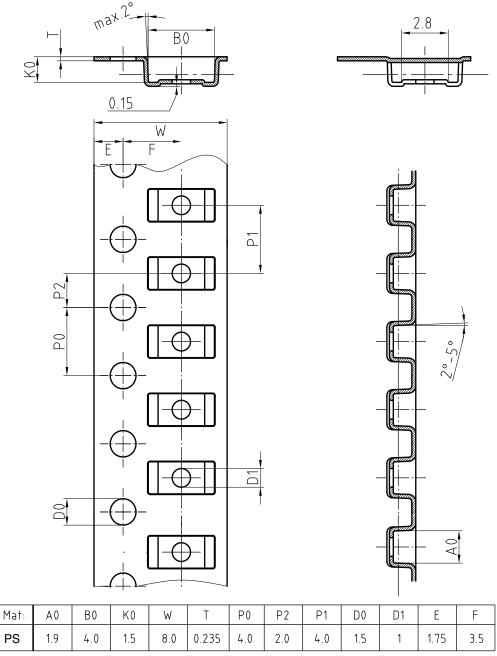
Foot print recommendation:



Created - Date: 15. February 2005 Rev. 3 - Date: 13. March 2007 Document no.:S8-V-3915.01-001 (4) 17247

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



PS

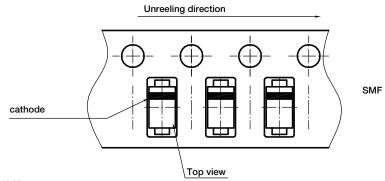
Document-No.: S8-V-3717.02-001 (3)

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Vishay Semiconductors

ORIENTATION IN CARRIER TAPE - SMF



Document no.: S8-V-3717.02-003 (4) Created - Date: 09. Feb. 2010

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