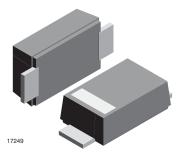


Standard Recovery Rectifier High Voltage Surface Mount



MECHANICAL DATA

Case: DO-219AB (SMF)

Polarity: band denotes cathode end

Weight: approx. 15 mg
Packaging codes / options:
GS18/10K per 13" reel (8 mm tape)
GS08/3K per 7" reel (8 mm tape)

Int. construction: single

FEATURES

• For surface mounted applications



· Low profile package

Glass passivated

• Ideal for automated placement

od placement

BoHS

 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 www.vishay.com/doc?99912

PARTS TABLE				
PART	ORDERING CODE MARKING		REMARKS	
S07B	S07B-GS18 or S07B-GS08	SB	Tape and reel	
S07D	S07D-GS18 or S07D-GS08	SD	Tape and reel	
S07G	S07G-GS18 or S07G-GS08	SG	Tape and reel	
S07J	S07J-GS18 or S07J-GS08	SJ	Tape and reel	
S07M	S07M-GS18 or S07M-GS08	SM	Tape and reel	

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT	
		S07B	V_{RRM}	100	V	
		S07D	V_{RRM}	200	V	
Maximum repetitive peak reverse voltage		S07G	V_{RRM}	400	V	
		S07J	V_{RRM}	600	V	
		S07M	V_{RRM}	1000	V	
		S07B	V _{RMS}	70	V	
		S07D	V _{RMS}	140	V	
Maximum RMS voltage		S07G	V _{RMS}	280	V	
		S07J	V _{RMS}	420	V	
		S07M	V _{RMS}	700	V	
		S07B	V _{DC}	100	V	
		S07D	V _{DC}	200	V	
Maximum DC blocking voltage		S07G	V _{DC}	400	V	
		S07J	V _{DC}	600	V	
		S07M	V_{DC}	1000	V	
Maximum avarage forward rectified assurant	$T_{tp} = 110 ^{\circ}C^{(1)}$		I _{F(AV)}	1.5	Α	
Maximum average forward rectified current	$T_A = 65 ^{\circ}C^{(1)}$		I _{F(AV)}	0.7	Α	
Peak forward surge current 8.3 ms single half sine-wave	T _L = 25 °C		I _{FSM}	25	А	

Note

(1) Averaged over any 20 ms period



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	
Operating junction and storage temperature range		T_j , T_{stg}	-65 to +175	°C	

Note

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

PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Instantaneous forward voltage	I _F = 1 A ⁽¹⁾	S07B	V _F			1.1	V
		S07D	V _F			1.1	V
		S07G	V _F			1.1	V
		S07J	V _F			1.1	V
		S07M	V _F			1.1	V
	T _A = 25 °C	S07B	I _R			10	μΑ
		S07D	I _R			10	μΑ
		S07G	I _R			10	μΑ
		S07J	I _R			10	μΑ
Maximum DC reverse current at		S07M	I _R			10	μΑ
rated DC blocking voltage	T _A = 125 °C	S07B	I _R			50	μΑ
		S07D	I _R			50	μΑ
		S07G	I _R			50	μΑ
		S07J	I _R			50	μΑ
		S07M	I _R			50	μΑ
Reverse recovery time	I _F = 0.5 A, I _R = 1 A, I _{rr} = 0.25 A	S07B	t _{rr}			1800	ns
		S07D	t _{rr}			1800	ns
		S07G	t _{rr}			1800	ns
		S07J	t _{rr}			1800	ns
		S07M	t _{rr}			1800	ns
	4 V, 1 MHz	S07B	C _j		4		pF
Typical capacitance		S07D	C _j		4		pF
		S07G	C _j		4		pF
		S07J	C _j		4		pF
		S07M	C _i		4		pF

Note

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

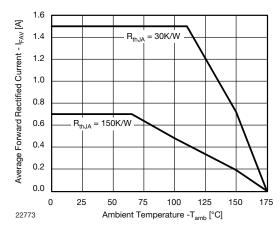


Fig. 1 - Forward Current Derating Curve

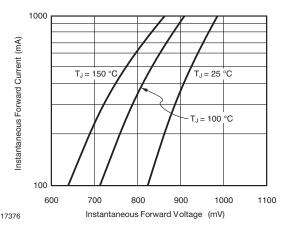
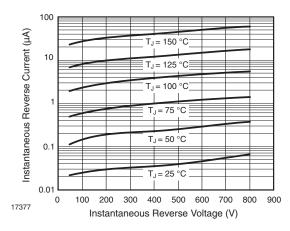


Fig. 2 - Typical Instantaneous Forward Characteristics

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





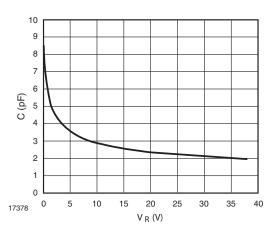
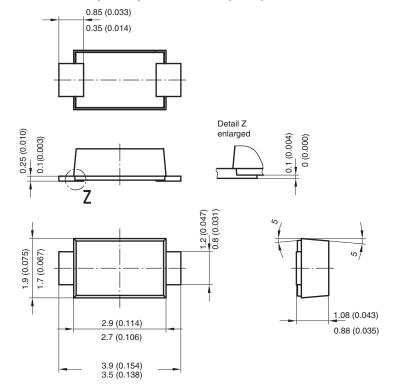
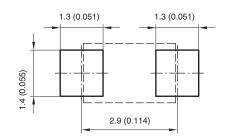


Fig. 4 - Capacitance vs. Reverse Voltage

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

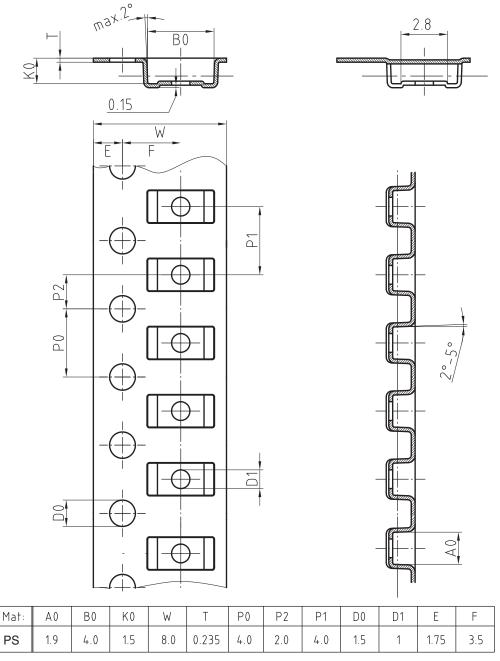


Foot print recommendation:



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

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



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