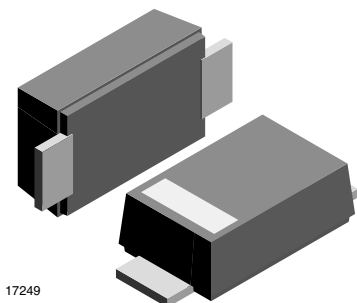


Schottky Rectifier Surface Mount



17249

FEATURES

- For surface mounted applications
- Ideal for automated placement
- Low power loss, high efficiency
- High temperature soldering: 260 °C/10 s at terminals
- Wave and reflow solderable
- AEC-Q101 qualified
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC


RoHS
COMPLIANT

MECHANICAL DATA

Case: DO-219AB (SMF)

Polarity: color band denotes cathode end

Weight: approx. 15 mg

Packaging codes/options:

GS18/10K per 13" reel (8 mm tape), 50K/box

GS08/3K per 7" reel (8 mm tape), 30K/box

Int. construction: single

PARTS TABLE

PART	ORDERING CODE	MARKING	REMARKS
SL02	SL02-GS18 or SL02-GS08	S2	Tape and reel
SL03	SL03-GS18 or SL03-GS08	S3	Tape and reel
SL04	SL04-GS18 or SL04-GS08	S4	Tape and reel

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

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		SL02	V_{RRM}	20	V
		SL03	V_{RRM}	30	V
		SL04	V_{RRM}	40	V
Maximum RMS voltage		SL02	V_{RMS}	14	V
		SL03	V_{RMS}	21	V
		SL04	V_{RMS}	28	V
Maximum DC blocking voltage		SL02	V_{DC}	20	V
		SL03	V_{DC}	30	V
		SL04	V_{DC}	40	V
Maximum average forward rectified current	$T_{tp} = 109\text{ }^{\circ}\text{C}$		$I_{F(AV)}$	1.1	A
Peak forward surge current 8.3 ms single half sine-wave			I_{FSM}	40	A

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, 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		T_j	125	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 55 to 150	$^{\circ}\text{C}$

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 CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Instantaneous forward voltage	$I_F = 0.5\text{ A}^{(1)}$	SL02	V_F		0.360	0.385	V
		SL03	V_F		0.395	0.43	V
		SL04	V_F		0.450	0.51	V
Typical instantaneous forward voltage	$I_F = 1.1\text{ A}$	SL02	V_F		0.420		V
		SL03	V_F		0.450		V
		SL04	V_F		0.530		V
Maximum DC reverse current at rated DC blocking voltage	$T_A = 25\text{ }^{\circ}\text{C}$	SL02	I_R			250	μA
	$T_A = 100\text{ }^{\circ}\text{C}$	SL02	I_R			8	mA
	$T_A = 25\text{ }^{\circ}\text{C}$	SL03	I_R			130	μA
	$T_A = 100\text{ }^{\circ}\text{C}$	SL03	I_R			6	mA
	$T_A = 25\text{ }^{\circ}\text{C}$	SL04	I_R			20	μA
	$T_A = 100\text{ }^{\circ}\text{C}$	SL04	I_R			6	mA
Reverse recovery time		SL02	t_{rr}			< 10	ns
		SL03	t_{rr}			< 10	ns
		SL04	t_{rr}			< 10	ns

Note

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

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

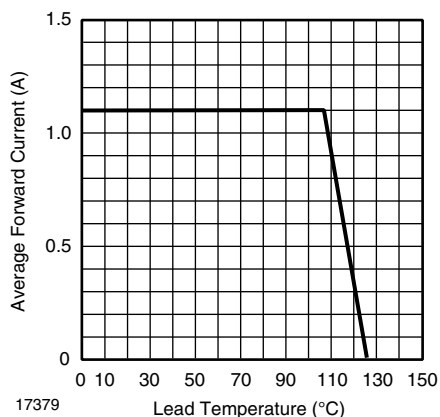


Fig. 1 - Forward Current Derating Curve

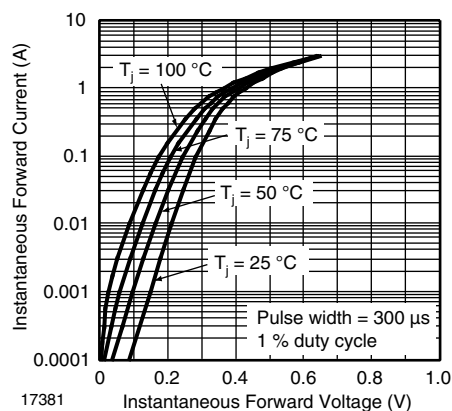


Fig. 3 - Typical Instantaneous Forward Characteristics - SL02

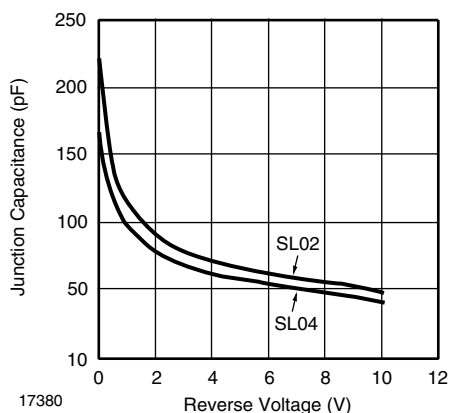


Fig. 2 - Typical Junction Capacitance

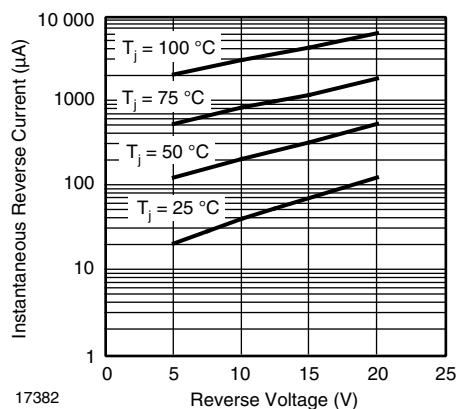


Fig. 4 - Typical Reverse Current Characteristics - SL02

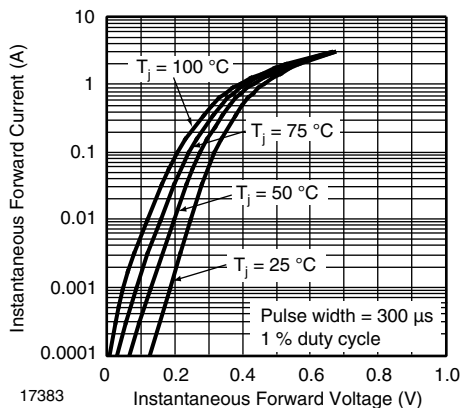


Fig. 5 - Typical Instantaneous Forward Characteristics - SL03

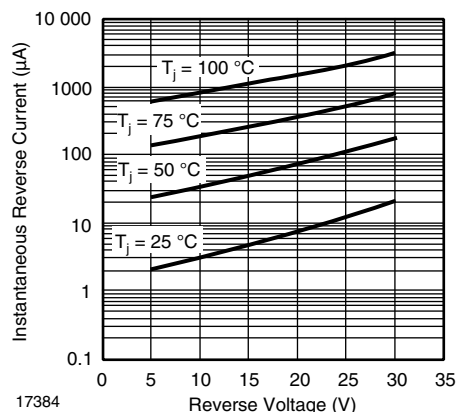
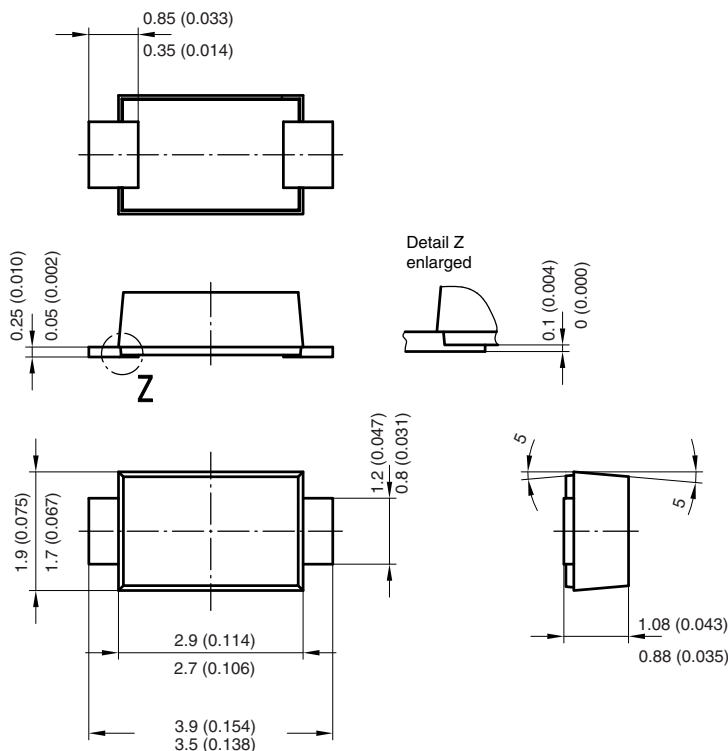
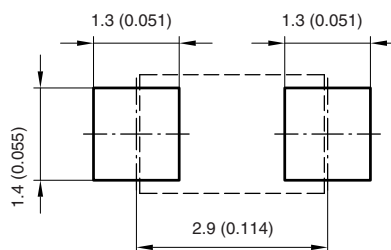


Fig. 6 - Typical Reverse Current Characteristics - SL03

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

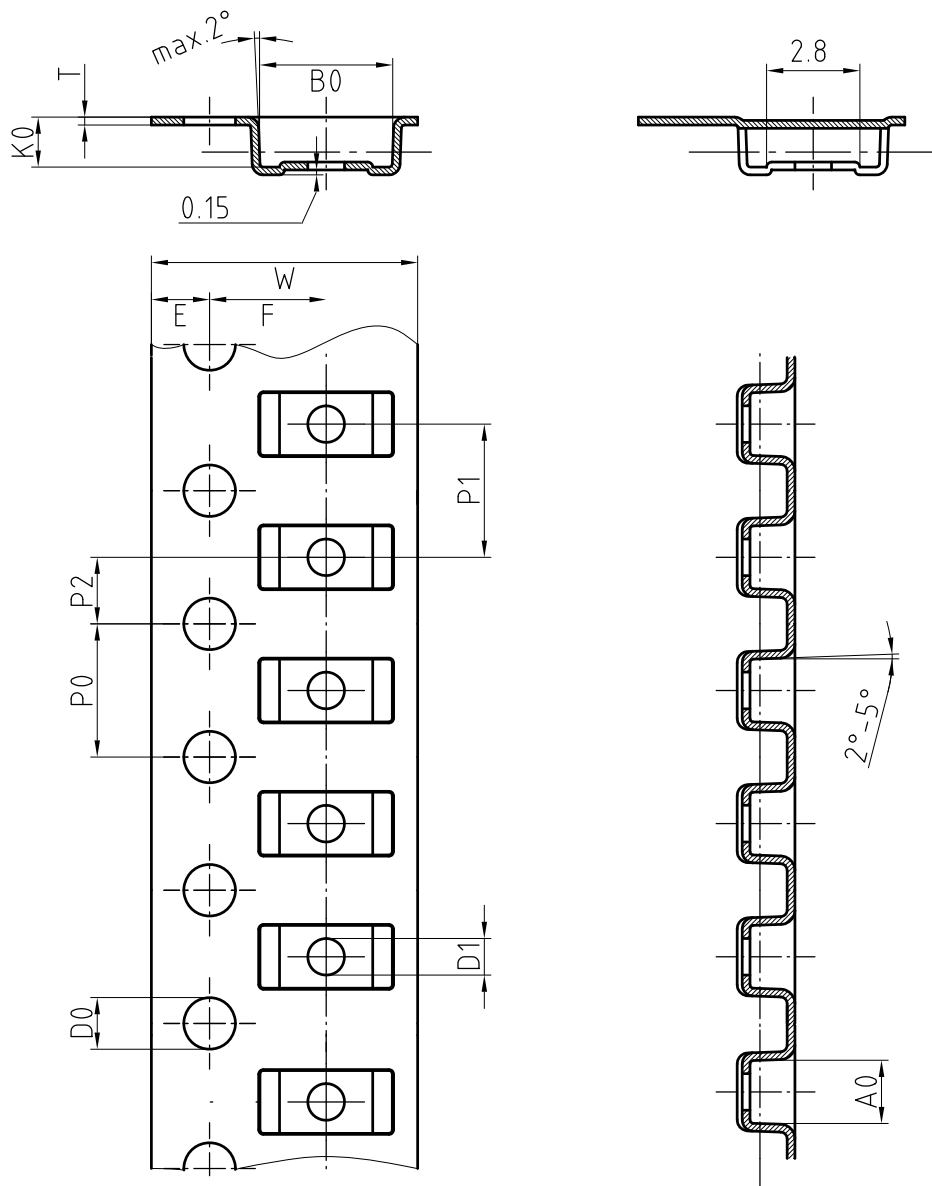


Foot print recommendation:



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

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



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)

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