



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

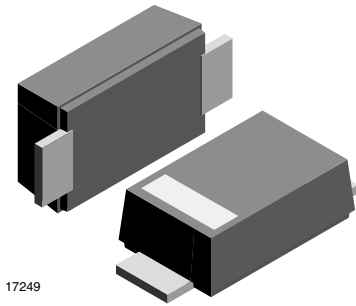
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Ultrafast Rectifier Surface Mount



17249

MECHANICAL DATA

Case: DO-219AB (SMF)

Polarity: band denotes cathode end

Weight: approx. 15 mg

Packaging codes / options:

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

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

Int. construction: Single die

FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass passivated pallet 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 www.vishay.com/doc?99912


RoHS
 COMPLIANT
 HALOGEN
FREE

PARTS TABLE			
PART	ORDERING CODE	MARKING	REMARKS
ES07B-M	ES07B-M-18 or ES07B-M-08	GB	Tape and reel
ES07D-M	ES07D-M-18 or ES07D-M-08	GD	Tape and reel

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ °C}$, unless otherwise specified)					
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		ES07B-M	V_{RRM}	100	V
		ES07D-M	V_{RRM}	200	V
Maximum RMS voltage		ES07B-M	V_{RMS}	70	V
		ES07D-M	V_{RMS}	140	V
Maximum DC blocking voltage		ES07B-M	V_{DC}	100	V
		ES07D-M	V_{DC}	200	V
Maximum average forward rectified current	$T_{tp} = 109\text{ °C}$		$I_{F(AV)}$	1.2	A
	$T_A = 65\text{ °C}^{(1)}$		$I_{F(AV)}$	0.5	A
Peak forward surge current 8.3 ms single half sine-wave	$T_L = 25\text{ °C}$		I_{FSM}	30	A

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

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ °C}$, 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}	-55 to 150	°C

Note
⁽¹⁾ Mounted on epoxy glass PCB 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	$I_F = 1\text{ A}^{(1)}$	ES07B-M	V_F			0.98	V
		ES07D-M	V_F			0.98	V
Maximum DC reverse current at rated DC blocking voltage	$T_A = 25\text{ }^{\circ}\text{C}$	ES07B-M	I_R			10	μA
		ES07D-M	I_R			10	μA
	$T_A = 100\text{ }^{\circ}\text{C}$	ES07B-M	I_R			50	μA
		ES07D-M	I_R			50	μA
Reverse recovery time	$I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_{rr} = 0.25\text{ A}$	ES07B-M	t_{rr}			25	ns
		ES07D-M	t_{rr}			25	ns
Typical capacitance	4 V, 1 MHz	ES07B-M	C_j		4		pF
		ES07D-M	C_j		4		pF

Note

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

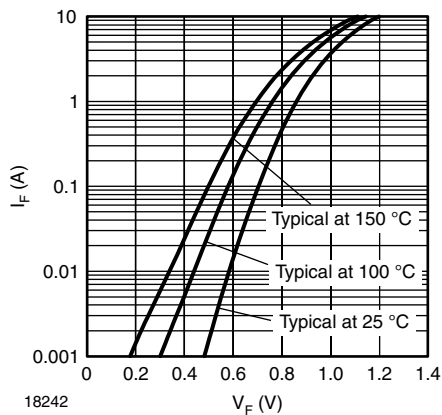
TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)


Fig. 1 - Typical Forward Characteristics

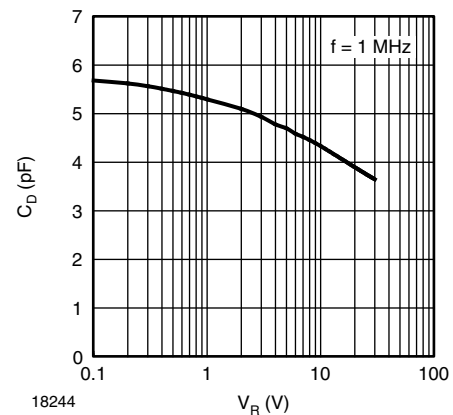


Fig. 3 - Typical Diode Capacitance vs. Reverse Voltage

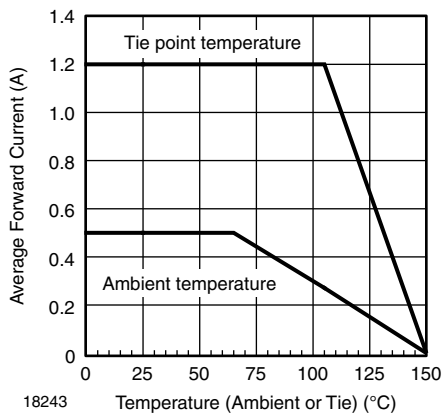


Fig. 2 - Forward Current Derating Curve

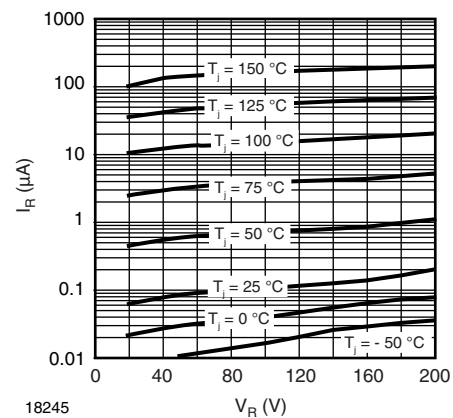
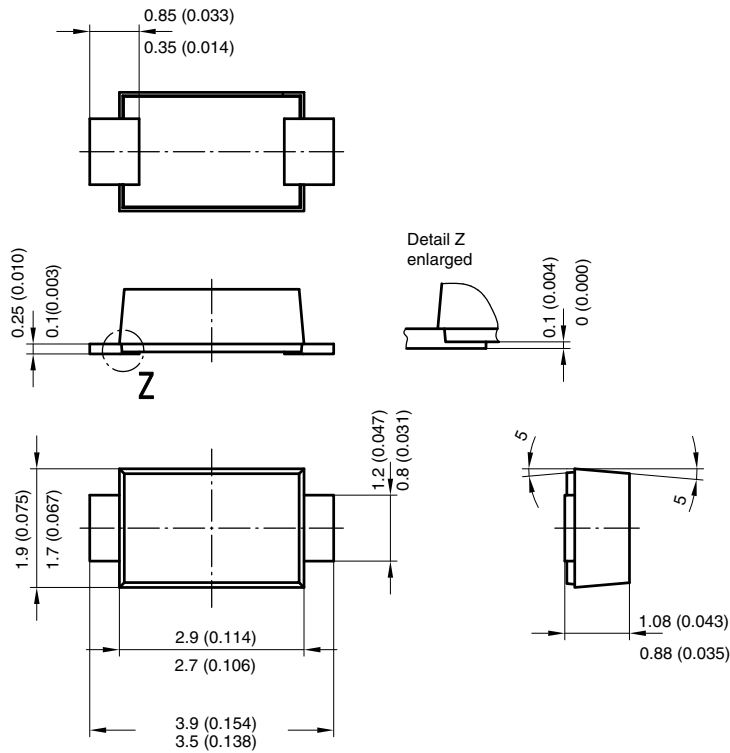


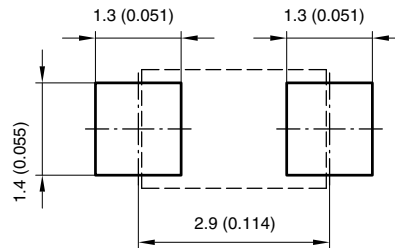
Fig. 4 - Typical Reverse Characteristics



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



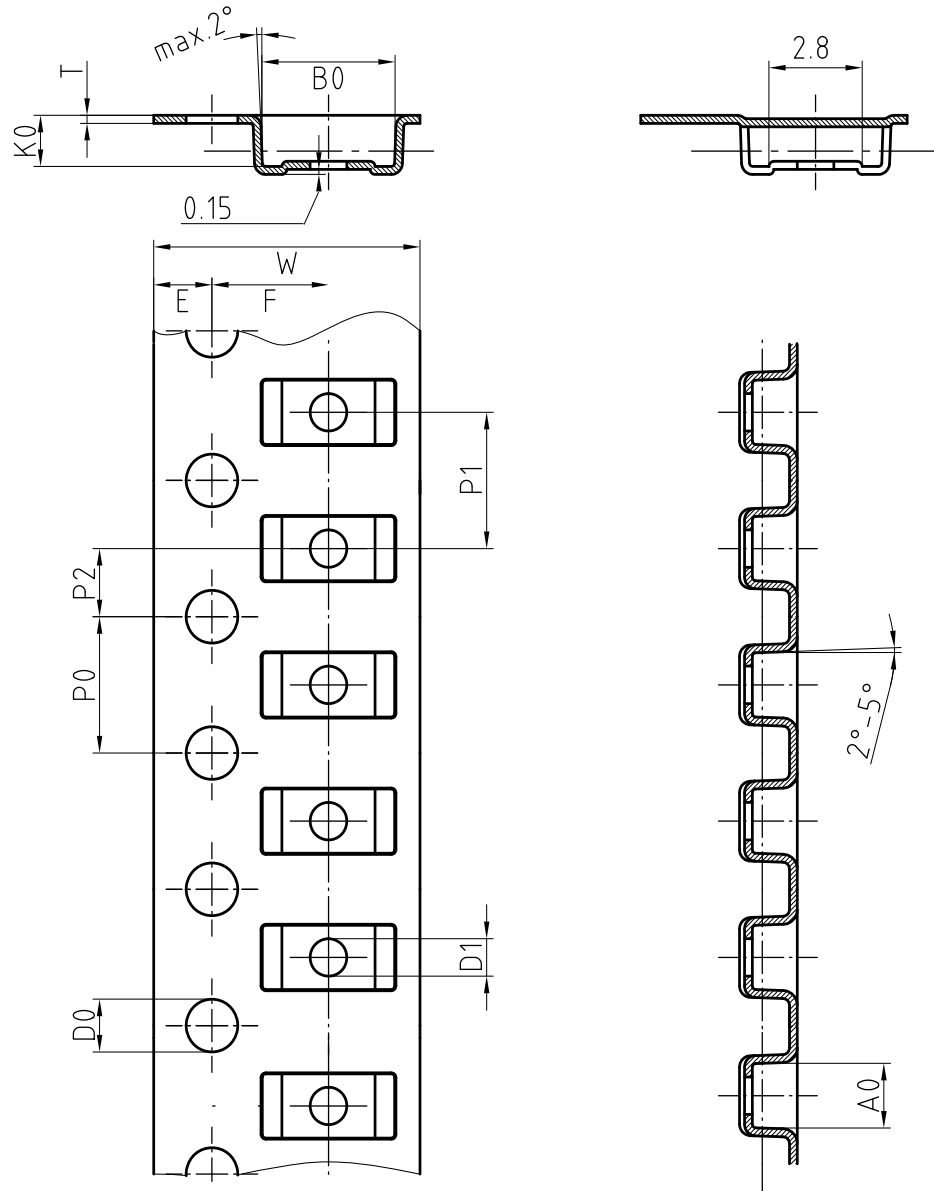
Foot print recommendation:



Created - Date: 15. February 2005
Rev. 3 - Date: 13. March 2007
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17247



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



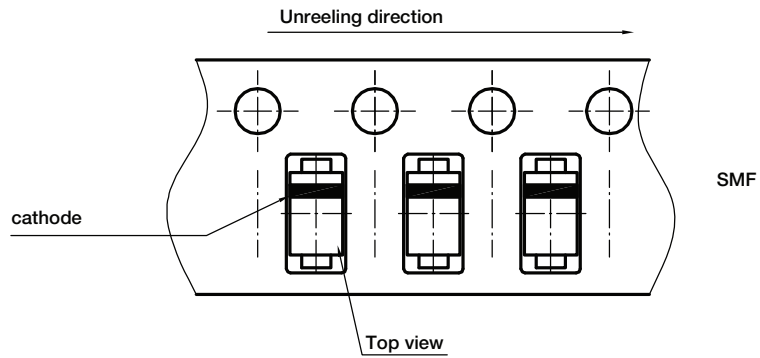
Mat:	A0	B0	K0	W	T	P0	P2	P1	D0	D1	E	F
PS	1.9	4.0	1.5	8.0	0.235	4.0	2.0	4.0	1.5	1	1.75	3.5

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

18513



ORIENTATION IN CARRIER TAPE - SMF



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Created - Date: 09. Feb. 2010
22670



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