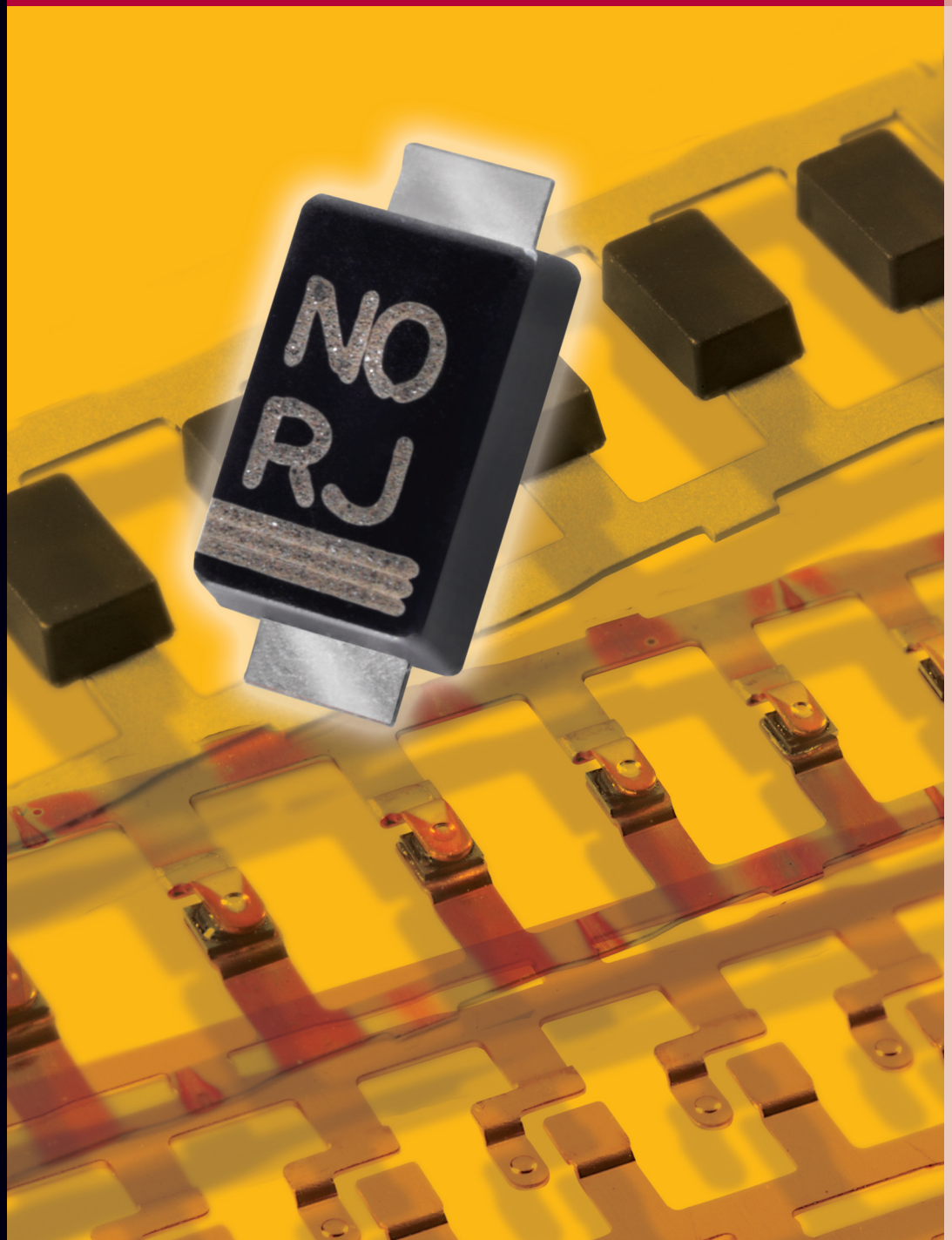




# DIODES IN SMF PACKAGE

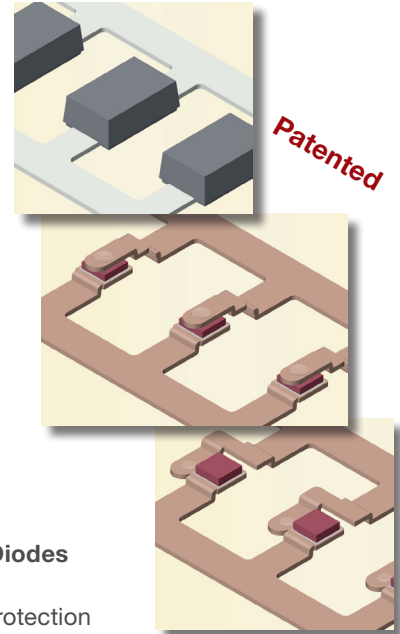
DO-219AB





# DIODES

## DO-219AB Surface-Mount Flat Package



### New SMF Package Delivers Improved Performance in a Smaller Footprint

Vishay is adding to its innovative SMD solutions with a range of new devices in the SMF (DO-219AB) package. The SMF meets the demand for smaller and thinner diodes that enable small and light portable products, such as cellular phones, notebook PCs, and portable consumer products, as well as space-constrained automotive modules. With its exceptionally low height profile of 0.98 mm, the SMF package reduces space requirements and improves circuit board density. Vishay Semiconductors diode products offered in the SMF address all industry segments and include switching, fast switching, ultrafast switching, Schottky, ESD protection, and Zener diodes.

#### Features

- Broad Product Range
- Excellent Stability
- Best-in-Class Reliability
- Flat Terminal Allows Stable Mounting on PCB
- High Reliability Due to Planar Structure of the Die
- High Surge Current Capability Due to Soldered Construction
- High Power Rating Despite Small Package Size
- Ultra Low Stress Epoxy Molding Compound
- Automotive (AEC-Q101) Qualified
- Reflow and wave solderable
- Reverse voltage up to 1000V
- Halogen Free versions available

#### Applications

- **Fast and Superfast Diodes**
  - Portable Products
  - Reverse Current Protection
  - DC/DC Converters
  - Lighting
- **General Purpose and Schottky Diodes**
  - Rectification
  - Reverse Polarity Protection
  - Free Wheeling
  - Automotive
- **Zener and ESD Protection Diodes**
  - Voltage Stabilization
  - Gate Protection for MOSFETs
  - ESD Protection
  - Lighting

ESD Protection Diodes	$T_j$ max. (°C)	$V_f$ (V)	Pppm @ 10/1000 $\mu$ s (W)	Pppm @ 8/20 $\mu$ s (W)	$V_{(BR)}$ (V)	ESD Protection Air/Contact (kV)
SMF5V0A - SMF51A	150	3.5 @ 12 A	200	1000	6.4 to 56.7	30/8
BZD27C3V6P - BZD27C200P	150	1.2 @ 0.2 A	150 (< 100 V) 100 ( $\geq$ 110 V)	-	7.0 to 188	30/8

Zener Diodes	$T_j$ max. (°C)	$V_f @ 0.2$ A (V)	$P_{tot}$ (W)	$V_Z$ (V)
BZD27C3V6P - BZD27C200P	150	1.2	0.8	3.6 TO 200

Schottky Diodes	$T_j$ max. (°C)	$I_{FSM}$ (A)	$I_{F(AV)}$ (A)	$V_{RRM}$ (V)	$V_F @ 0.5$ A (V)	$V_F @ 1.1$ A (V)	$I_R @ 25$ °C ( $\mu$ A)	$I_R @ 100$ °C (mA)
SL02	125	40	1.1	20	0.36	0.42	250	8
SL03	125	40	1.1	30	0.395	0.45	130	6
SL04	125	40	1.1	40	0.45	0.53	20	6

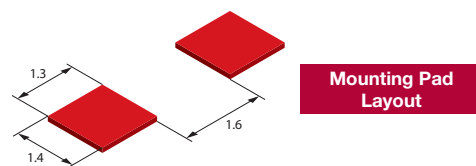
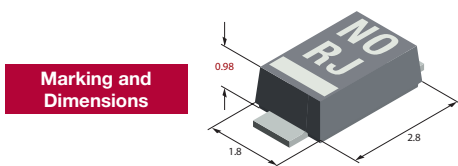
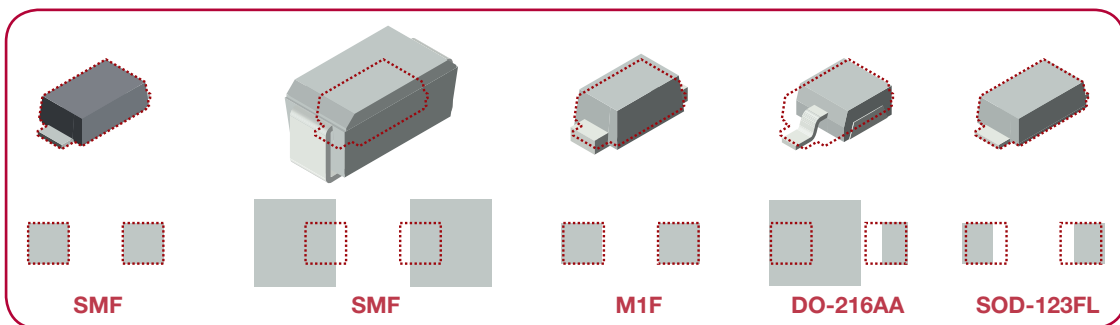
For further technical information, please contact:

DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com, or visit our web site.

## DO219-AB Surface-Mount Flat Package

Switching Diodes	T <sub>j</sub> max. (°C)	I <sub>FSM</sub> (A)	I <sub>F(AV)</sub> (A)	V <sub>RRM</sub> (V)	V <sub>F</sub> @ 1.0 A (V)	I <sub>R</sub> @ 25 °C (μA)	I <sub>R</sub> @ 125 °C (μA)	t <sub>rr</sub> (μs)
S07B	150	25	1.5	100	1.1	10	50	1.8
S07D	150	25	1.5	200	1.1	10	50	1.8
S07G	150	25	1.5	400	1.1	10	50	1.8
S07J	150	25	1.5	600	1.1	10	50	1.8
S07M	150	25	1.5	1000	1.1	10	50	1.8
Fast Switching Diodes	T <sub>j</sub> max. (°C)	I <sub>FSM</sub> (A)	I <sub>F(AV)</sub> (A)	V <sub>RRM</sub> (V)	V <sub>F</sub> @ 0.7 A (V)	I <sub>R</sub> @ 25 °C (μA)	I <sub>R</sub> @ 125 °C (μA)	t <sub>rr</sub> (ns)
RS07B	150	30	1.4	100	1.15	10	50	150
RS07D	150	30	1.4	200	1.15	10	50	150
RS07G	150	30	1.4	400	1.15	10	50	150
RS07J	150	30	1.4	600	1.15	10	50	250
RS07K	150	30	1.4	800	1.3 @ 1 A	2	150	300
Ultrafast Switching Diodes	T <sub>j</sub> max. (°C)	I <sub>FSM</sub> (A)	I <sub>F(AV)</sub> (A)	V <sub>RRM</sub> (V)	V <sub>F</sub> @ 1.0 A (V)	I <sub>R</sub> @ 25 °C (μA)	I <sub>R</sub> @ 100 °C (μA)	t <sub>rr</sub> (ns)
ES07B	150	30	1.2	100	0.98	10	50	25
ES07D	150	30	1.2	200	0.98	10	50	25
Compatible with Common Industry Standards	SMF Mounting Pad Compatibility	SMF Package Height Comparison	SMF Mounting Pad Area Comparison					
SMA	-	- 120%	- 110%					
M1F	Yes	-40%	- 5%					
DO-216AA	Yes	- 4%	- 30%					
SOD-123FL	Yes	0%	- 5%					

\* Reflow soldering/wave soldering



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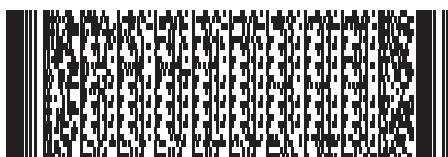
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