

Vishay Intertechnology Small Signal Schottky and Switching Diodes Feature Ultra Compact DFN1006-2A Package With Wettable Flanks



Available in AEC-Q101 Qualified Versions, 40 V and 100 V Devices Save Space and Improve Thermal Performance Over Diodes in Traditional SOD/T Packages

MALVERN, Pa. — Oct. 11, 2021 — Vishay Intertechnology, Inc. (NYSE: VSH) today introduced new surface-mount small signal diodes in the ultra-compact DFN1006-2A plastic package with wettable flanks. Designed to save space and improve thermal performance in automotive and industrial applications, the 40 V BAS40L Schottky and 100 V BAS16L switching diodes are each available in AEC-Q101 qualified versions.

Measuring only 1 mm by 0.6 mm by 0.45 mm, the diodes released today occupy 90 % less board space than devices in traditional SOD/T packages, while offering a 50 % lower profile and better power dissipation. For protection against excessive voltage, such as electrostatic discharges, the BAS40L features a PN junction guard ring.

The BAS40L and BAS16L offer a moisture sensitivity level (MSL) of 1 in accordance with J-STD-020 and a UL 94 V-0 flammability rating. RoHS-compliant, halogen-free, and Vishay Green, the diodes support automated optical inspection (AOI) for automotive systems. Soldering can be checked by standard vision inspection; no X-ray is required.

Device Specification Table:

Part number	Package	Type	I_F	V_R	I_{FSM}	V_F at I_F and T_J			T_J max	AEC-Q101
			(A)	(V)	(A)	V_F (V)	I_F (A)	T_A (°C)	(°C)	
BAS16L-G3-08	DFN1006-2A	Switching	0.25	100	1.7 (@ 1 ms)	0.86	0.01	25	150	No
BAS16L-HG3-08	DFN1006-2A	Switching	0.25	100	1.7 (@ 1 ms)	0.86	0.01	25	150	Yes
BAS40L-G3-08	DFN1006-2A	Schottky	0.2	40	0.5 (@ 10 ms)	0.56	0.01	25	150	No
BAS40L-HG3-08	DFN1006-2A	Schottky	0.2	40	0.5 (@ 10 ms)	0.56	0.01	25	150	Yes

Vishay manufactures one of the world's largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets. Serving customers worldwide, Vishay is **The DNA of tech.**™ Vishay Intertechnology, Inc. is a Fortune 1,000 Company listed on the NYSE (VSH). More on Vishay at www.vishay.com.