



The DNA of tech.™

Standard Rectifiers in DFN3820A Package

Industry-First 2 A to 4 A, Up to 600 V Standard Rectifiers in Extremely Low Profile Power DFN3820A



ADVANTAGE

Power DFN design offers high current density and high efficiency capability with small and extremely low profile solutions

KEY PRODUCT FEATURES

- ✓ Industry-first Power DFN3820A low profile package with wettable flanks - small dimensions of 3.8 mm x 2.0 mm with typical height of 0.88 mm
- ✓ High current 2 A to 4 A standard rectifiers with high efficiency
- ✓ Compared to the SMP (DO-220AA) package, the DFN3820A more than doubles the performance under thermal equilibrium conditions
- ✓ Oxide planar chip junction design
- ✓ Reverse voltage up to 600 V with typical reverse leakage current less than 0.1 μ A and a wide temperature range from -55 °C to +175 °C



RESOURCES



SE20ND, SE20NG, SE20NJ



Product Page

SE30ND, SE30NG, SE30NJ



Product Page

SE40ND, SE40NG, SE40NJ



Product Page

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MARKETS & APPLICATIONS



CONNECTIVITY

- Telecom mobile and fixed infrastructure
- Telecom mobile devices



CONSUMER

- Entertainment
- Appliances
- Health and care



MOBILITY

- Automotive
- Micro mobility
- Agriculture equipment



ENERGY SECTOR

- Energy distribution and management
- Energy generation and exploration
- Energy storage



INDUSTRIAL

- Automation
- Drives, tools, infrastructure
- Home and building controls



COMPUTER

- Notebooks, servers, desktops, embedded, edge computing, portable computers, tablets, super computers, DRAM
- Peripherals

The Key Specifications

Part Number	$I_{F(AV)}$ (A)	V_{RRM} (V)	I_{FSM} (A)	V_F at I_F and T_J			T_J Max. (°C)	Package
				V_F (V)	I_F (A)	T_J (°C)		
SE20ND	2	200	32	0.86	2	125	175	DFN3820A
SE20NG	2	400	32	0.86	2	125	175	DFN3820A
SE20NJ	2	600	32	0.86	2	125	175	DFN3820A
SE30ND	3	200	40	0.86	3	125	175	DFN3820A
SE30NG	3	400	40	0.86	3	125	175	DFN3820A
SE30NJ	3	600	40	0.86	3	125	175	DFN3820A
SE40ND	4	200	60	0.86	4	125	175	DFN3820A
SE40NG	4	400	60	0.86	4	125	175	DFN3820A
SE40NJ	4	600	60	0.86	4	125	175	DFN3820A

Vishay Intertechnology introduces three new series of Automotive Grade surface-mount standard rectifiers that are the industry's first devices in the Power DFN Series DFN3820A package with wettable flanks. Providing space-saving, high efficiency solutions, the 2 A SE20Nx, 3 A SE30Nx, and 4 A SE40Nx are each available with reverse voltages of 200 V, 400 V, and 600 V.

- The first package in Vishay's new Power DFN family, the DFN3820A's compact footprint and low profile allow the SE20Nx, SE30Nx, and SE40Nx to make more efficient use of PCB space
- The devices' optimized copper mass design and advanced die placement technology allow for superior thermal performance that enables operation at higher current ratings
- Compared to devices in the SMP (DO-220AA) package with the same footprint, the SE20Nx, SE30Nx, and SE40Nx offer a 12 % lower profile and double the current rating
- The rectifiers offer equivalent or higher current ratings to larger devices in the conventional SMB (DO-214AA) and SMC (DO-214AB) packages, as well as the eSMP[®] series SlimSMA (DO-221AC), SlimSMAW (DO-221AD), SMPA (DO-221BC), and SMPC (TO-2778)

