



DIODES

TMBS[®] Rectifiers

45 V to 200 V TMBS[®] Rectifiers in SMPA Package Cut Power Losses and Increase Efficiency in Automotive and Commercial Applications



KEY BENEFITS

- SMPA (DO-221BC) package with very low profile: 0.95 mm typical height
- Current ratings from 3 A to 8 A
- Low forward voltage drop down to 0.37 V at 3 A
- Low power losses and high efficiency
- Maximum operating junction temperature up to 175 °C
- Trench MOS Schottky technology
- AEC-Q101 qualified

APPLICATIONS

- For use in high frequency DC/DC converters, switching power supplies, freewheeling diodes, OR-ing diodes, and reverse battery protection in commercial, industrial, and automotive applications

RESOURCES

- Datasheets: see next page for products
- For technical questions contact:
DiodesAmerica@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912





DIODES

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Vishay's 45 V to 200 V TMBS[®] Trench MOS Barrier Schottky rectifiers feature high current density with current ratings from 3 A to 8 A in the low profile SMPA (DO-221BC) package. The 45 V, 60 V, 100 V, 120 V, 150 V, and 200 V devices are AEC-Q101 qualified for automotive applications, while the 50 V rectifiers are ideal for commercial applications, especially smartphone and tablet chargers.

I _F (A)	Part Number	V _{RRM} (V)	V _F at I _F (T _A = 125 °C)		I _{FSM} (A)	T _J Max. (°C)	AEC-Q101 Qualified
			V _F (V)	I _F (A)			
3	V3PAL45	45	0.37	3	80	150	Yes
	V3PAN50-M3	50	0.4	3	80	150	No
4	V4PAL45	45	0.41	4	80	150	Yes
	V4PAN50-M3	50	0.46	4	80	150	No
5	V5PA22	200	0.69	5	90	175	Yes
8	V8PA6	60	0.49	8	100	150	Yes
	V8PA10	100	0.61	8	100	150	Yes
	V8PA12	120	0.64	8	100	150	Yes
	V8PA15	150	0.68	8	100	150	Yes
	V8PA22	200	0.7	8	100	175	Yes
	V8PAL45	45	0.4	8	120	150	Yes
	V8PAL50-M3	50	0.4	8	120	150	No
	V8PAM10	100	0.62	8	100	175	Yes
	V8PAM12	120	0.65	8	100	175	Yes
	V8PAN50-M3	50	0.41	8	120	150	No