



# 1200 V FRED Pt<sup>®</sup> GEN 7 HYPERFAST RECTIFIERS

## IN HIGH VOLTAGE eSMP<sup>®</sup> PACKAGES (SlimSMA HV AND SMPC HV)

Compact and low profile package design

Excellent trade-off between  $Q_{rr}$  and forward voltage drop

Low junction capacitance



Large creepage distances and CTI  $\geq 600$  (Material Group I)



Operating temperature range:  $-55\text{ }^{\circ}\text{C}$  to  $+175\text{ }^{\circ}\text{C}$



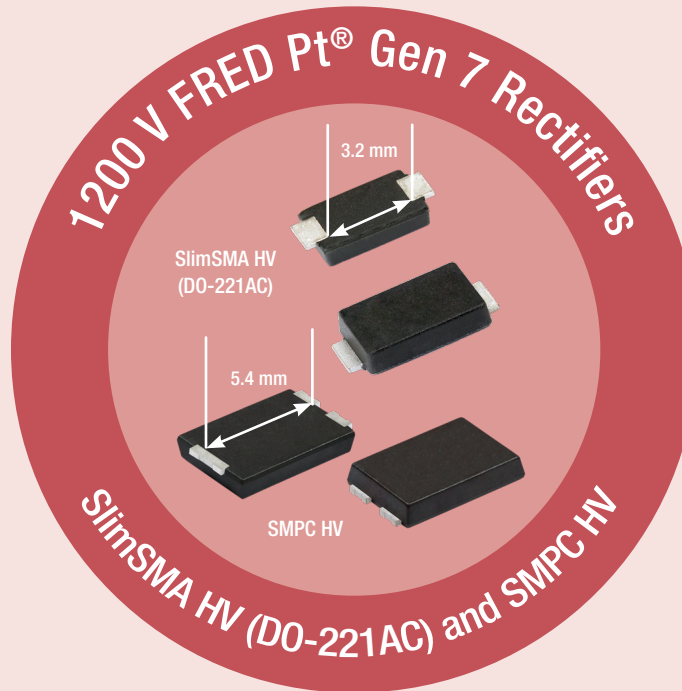
AEC-Q101 qualified and Vishay Automotive Grade



Forward current of 1 A, 2 A, and 3 A



Blocking voltage of 1200 V



### APPLICATIONS

- Clamp, snubber, and freewheeling diodes in flyback auxiliary power supplies and high frequency rectifiers for bootstrap driver functionality
- Desaturation protection for the latest fast-switching IGBTs and Si / SiC MOSFETs
- Industrial and telecom equipment, on-board chargers and motors for electric vehicles (EV), and Ćuk converters and industrial LED PFC CrM SEPIC circuitry



AUTOMOTIVE



INDUSTRIAL



EV BATTERY CHARGING



TELECOM INFRASTRUCTURE

### Automotive Portfolio

Part Number	$I_{F(AV)}$ (A)	Reverse Voltage (V)	Package	$V_F$ at $I_F$ (V)	$t_{rr}$ (ns)	$T_J$ max. ( $^{\circ}\text{C}$ )
<a href="#">VS-E7JX0112HM3</a>	1	1200	SlimSMA HV (DO-221AC)	1.45	50	175
<a href="#">VS-E7JX0212HM3</a>	2			1.6	45	
<a href="#">VS-E7SX0112HM3V</a>	1		SMPC HV	1.45	50	
<a href="#">VS-E7SX0212HM3V</a>	2			1.6	45	
<a href="#">VS-E7SX0312HM3V</a>	3			1.45	50	

### Non-Automotive Portfolio

Part Number	$I_{F(AV)}$ (A)	Reverse Voltage (V)	Package	$V_F$ at $I_F$ (V)	$t_{rr}$ (ns)	$T_J$ max. ( $^{\circ}\text{C}$ )
<a href="#">VS-E7JX0112-M3</a>	1	1200	SlimSMA HV (DO-221AC)	1.45	50	175
<a href="#">VS-E7JX0212-M3</a>	2			1.6	45	
<a href="#">VS-E7SX0112-M3V</a>	1		SMPC HV	1.45	50	
<a href="#">VS-E7SX0212-M3V</a>	2			1.6	45	
<a href="#">VS-E7SX0312-M3V</a>	3			1.45	50	

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