



1200 V FRED Pt[®] Gen 5 Rectifiers - Automotive

in TO-220AC 2L, TO-247AD 2L, TO-220AB 3L, TO-247AD 3L Packages

Reduced conduction and switching losses

Hyperfast and optimized Q_{rr}

High temperature operation to +175 °C

Available in X-type hyperfast and H-type ultrafast speed classes

AEC-Q101 qualified, meets JESD 201 class 1A whisker test



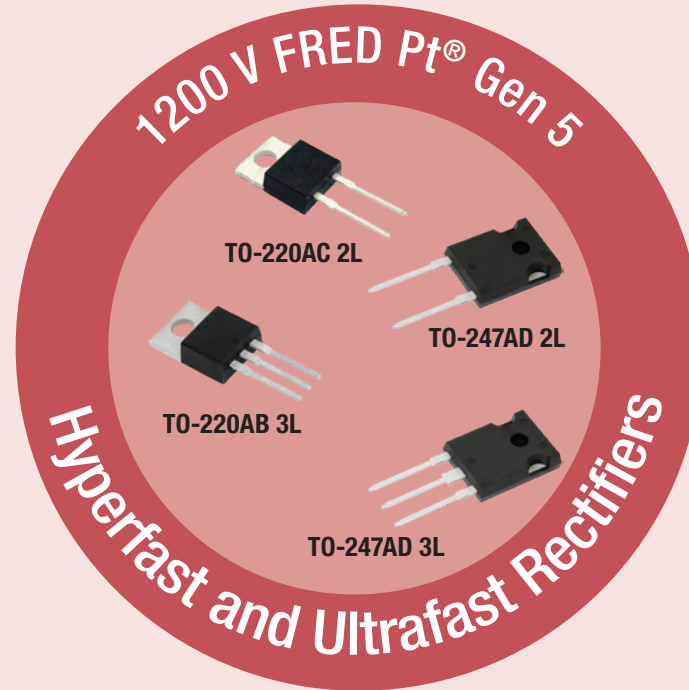
AEC-Q101 qualified



Current ratings from 8 A to 60 A



Breakdown voltage of 1200 V



APPLICATIONS

1200 V Fred Pt[®] Gen 5 rectifiers are a perfect match between robustness and efficiency for three-phase PFC in high power (up to 22 kW), uni-directional on-board chargers using Vienna T-type configurations



AUTOMOTIVE



EV / HEV BATTERY CHARGING

Automotive Portfolio

Part Number	V_R (V)	$I_{F(AV)}$ (A)	V_F Typ. (V) ⁽¹⁾	Q_{rr} Typ. (nC) ⁽²⁾	Speed Class	t_{rr} Typ. (ns) ⁽³⁾	Package
VS-E5TH0812THN3	1200	8	1.8	1350	H	33	TO-220AC 2L
VS-E5TX0812THN3	1200	8	2.1	960	X	27	TO-220AC 2L
VS-E5TH1512THN3	1200	15	1.7	1985	H	37	TO-220AC 2L
VS-E5TX1512THN3	1200	15	2.1	1600	X	29	TO-220AC 2L
VS-E5TH3012THN3	1200	30	1.7	3215	H	32	TO-220AC 2L
VS-E5TX3012THN3	1200	30	2.1	2400	X	26	TO-220AC 2L
VS-C5PH3012LHN3	1200	30 (2 x 15)	1.7	1985	H	37	TO-247AD 3L
VS-C5PX3012LHN3	1200	30 (2 x 15)	2.1	1600	H	29	TO-247AD 3L
VS-E5PH3012LHN3	1200	30	1.7	3215	H	32	TO-247AD 2L
VS-E5PX3012LHN3	1200	30	2.1	2300	X	26	TO-247AD 2L
VS-E5PH6012LHN3	1200	60	1.7	4080	H	38	TO-247AD 2L
VS-E5PX6012LHN3	1200	60	2.1	2950	X	30	TO-247AD 2L

Notes: ⁽¹⁾ I_F = rated current, $T_J = 125$ °C; ⁽²⁾ $T_J = 125$ °C, I_F = rated current A, $V_R = 1000$ V, $di_F/dt = 800$ A/μs; ⁽³⁾ $T_J = 25$ °C, $I_F = 1$ A, $di_F/dt = 100$ A/μs, $V_R = 30$ V

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