



600 V FRED Pt[®] Gen 5 Rectifiers in TO-220AC 2L and TO-247AD 2L Packages



**AEC-Q101
Qualified**

Ultrafast diode with optimized E_{REC} and I_{RRM}

Best in class among Si UF diodes in terms of E_{REC}

Optimized for high speed resonant SMPS operation (LLC)

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

AEC-Q101 extended up to 2000 h



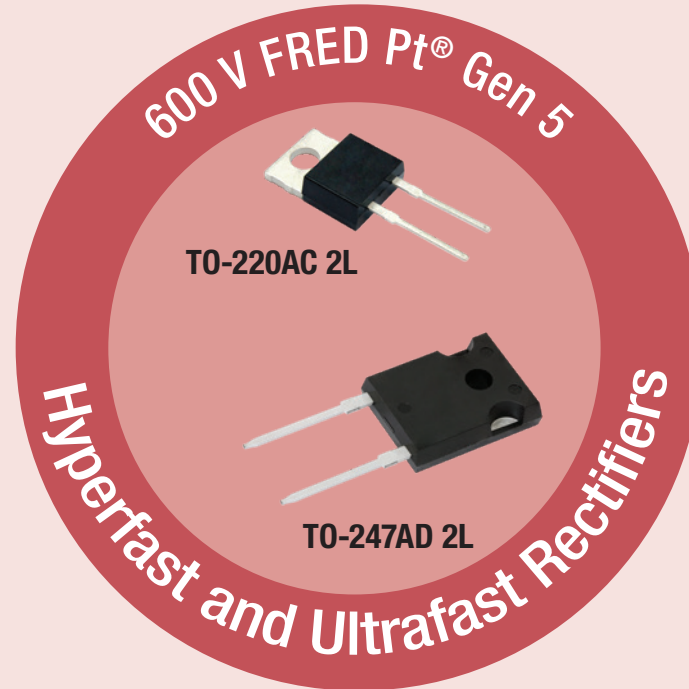
T_j max. Up to 175 °C



Current ratings from 15 A to 75 A



Breakdown voltage of 600 V



APPLICATIONS

High speed LLC output rectification stages for EV / HEV battery charging stations and high frequency stages for UPS applications



UPS



EV / HEV BATTERY
CHARGING STATIONS



AUTOMOTIVE

Automotive Portfolio

Part Number	V_R (V)	Speed Class	$I_{F(AV)}$ (A)	V_F Typ. (V) ⁽¹⁾	Q_{rr} Typ. (nC) ⁽²⁾	t_{rr} Typ. (ns) ⁽³⁾	Package
VS-E5TH1506THN3	600	H	15	1.15	782	22	TO-220AC 2L
VS-E5TX1506THN3	600	X	15	1.3	578	19	TO-220AC 2L
VS-E5TH3006THN3	600	H	30	1.15	1560	25	TO-220AC 2L
VS-E5TX3006THN3	600	X	30	1.3	952	22	TO-220AC 2L
VS-E5PH3006LHN3	600	H	30	1.15	1560	25	TO-247AD 2L
VS-E5PX3006LHN3	600	X	30	1.3	952	22	TO-247AD 2L
VS-E5PH6006LHN3	600	H	60	1.2	2385	29	TO-247AD 2L
VS-E5PX6006LHN3	600	X	60	1.4	1568	26	TO-247AD 2L
VS-E5PH7506LHN3	600	H	75	1.2	3090	32	TO-247AD 2L
VS-E5PX7506LHN3	600	X	75	1.4	2048	29	TO-247AD 2L

Non-Automotive Portfolio

Part Number	V_R (V)	Speed Class	$I_{F(AV)}$ (A)	V_F Typ. (V) ⁽¹⁾	Q_{rr} Typ. (nC) ⁽²⁾	t_{rr} Typ. (ns) ⁽³⁾	Package
VS-E5TH1506-M3	600	H	15	1.15	782	22	TO-220AC 2L
VS-E5TX1506-M3	600	X	15	1.3	578	19	TO-220AC 2L
VS-E5TH3006-M3	600	H	30	1.15	1560	25	TO-220AC 2L
VS-E5TX3006-M3	600	X	30	1.3	952	22	TO-220AC 2L
VS-E5PH3006L-N3	600	H	30	1.15	1560	25	TO-247AD 2L
VS-E5PX3006L-N3	600	X	30	1.3	952	22	TO-247AD 2L
VS-E5PH6006L-N3	600	H	60	1.2	2385	29	TO-247AD 2L
VS-E5PX6006L-N3	600	X	60	1.4	1568	26	TO-247AD 2L
VS-E5PH7506L-N3	600	H	75	1.2	3090	32	TO-247AD 2L
VS-E5PX7506L-N3	600	X	75	1.4	2048	29	TO-247AD 2L

Notes: ⁽¹⁾ I_F = rated current, $T_j = 125$ °C; ⁽²⁾ $T_j = 125$ °C, I_F = rated current A, $V_R = 400$ V, $di_F/dt = 1000$ A/μs; ⁽³⁾ $T_j = 25$ °C, $I_F = 1$ A $di_F/dt = 100$ A/μs, $V_R = 30$ V

For technical questions: DiodesAmericas@vishay.com, DiodesEurope@vishay.com, or DiodesAsia@vishay.com