

COMPACT, HIGH POWER ULTRAFAST DIODE MODULES IN SOT-227

200 V to 1200 V, 60 A to 450 A FRED Pt® Diode Modules

Vishay offers a series of ultrafast diodes modules in the SOT-227 package with a wide range of current ratings and voltages.

Based on Vishay FRED Pt® ultrafast technology, these modules provide ultrasoft recovery characteristics and high thermal efficiency.

FEATURES

- Wide range of current ratings: 60 A to 450 A per module
- Voltage: up to 1200 V
- Industry standard package outline
- Low thermal resistance
- Common cathode, (anti-)parallel and single phase bridge configurations
- Electrically insulated baseplate as well as not insulated
- $T_j = 175\text{ }^\circ\text{C}$
- Ultrasoft recovery behavior for low EMI

BENEFITS

- Easy to use and parallel
- Drop-in replacement to competitor alternative
- Several user-level configurations that fit many different applications
- Full converter design with Vishay SOT-227 modules when paired with our IGBT / MOSFET modules offer
- Various FRED Pt series to offer the best V_F / Q_{rr} tradeoff suitable for the application



APPLICATIONS

- Welding machines (output rectification)
- Switch Mode Power Supplies (SMPS)
- DC/DC converters
- Motor controls
- Inverters
- EV charging stations (high frequency output rectification)

RESOURCES

- For more information, contact us at modules@vishay.com
- For further information, visit www.vishay.com
- Samples available for all products



The DNA of tech.®

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Device	V _{RRM} (V)	I _{F(AV)} per diode at T _C		Max. V _F per at I _F		Typ t _{rr} at 25 °C (ns) ⁽²⁾	Typ Q _{rr} at 125 °C (nC) ⁽²⁾	Notes
		(A)	(°C)	(V)	(A)			
VS-U5FH120EA120	1200	60	85	2.5	60	71	5500	Dual, antiparallel - New Release
VS-U5FH120FA120	1200	60	85	2.5	60	71	5500	Dual, parallel - New Release
VS-U5FH240FA120	1200	120	75	2.5	120	98	9500	Dual, parallel - New Release
VS-U5FH60FA120	1200	30	105	2.5	30	54	3100	Dual, parallel - New Release
VS-U5FX120EA120	1200	60	75	3.52	60	46	3500	Dual, antiparallel - New Release
VS-U5FX120FA120	1200	60	75	3.52	60	46	3500	Dual, parallel - New Release
VS-U5FX240FA120	1200	120	76	3.52	120	60	6200	Dual, parallel - New Release
VS-U5FX60FA120	1200	30	85	3.57	30	41	2300	Dual, parallel - New Release
VS-U5FH120FA60	600	60	115	1.7	60	67	2200	Dual, parallel - New Release
VS-U5FH150FA60	600	75	100	1.7	75	70	2500	Dual, parallel - New Release
VS-U5FH300FA60	600	150	98	1.7	150	76	4100	Dual, parallel - New Release
VS-U5FH30BA60	600	30	105	2.1	30	57	900	Single phase bridge - New Release
VS-U5FH60FA60	600	30	132	1.8	30	61	1300	Dual, parallel - New Release
VS-U5FX120FA60	600	60	100	2.2	60	63	1600	Dual, parallel - New Release
VS-U5FX150FA60	600	75	102	2.2	75	65	940	Dual, parallel - New Release
VS-U5FX300FA60	600	150	80	2.2	150	72	2600	Dual, parallel - New Release
VS-U5FX60FA60	600	30	128	2.1	30	57	900	Dual, parallel - New Release
VS-UFB130FA60	600	82	85	1.8	60	79	1220	Dual, parallel
VS-UFB170FA60	600	94	90	1.43	100	220	9100	Dual, parallel
VS-UFB230FA60	600	141	85	1.78	100	83	1595	Dual, parallel
VS-UFB250FA60	600	168	90	1.19	100	166	10000	Dual, parallel
VS-UFB80FA60	600	57	85	1.9	60	79	1085	Dual, parallel
VS-UFL130FA60	600	87	85	1.6	60	105	1850	Dual, parallel
VS-UFL230FA60	600	160	85	1.44	100	104	2200	Dual, parallel
VS-UFL250AB60⁽¹⁾	600	65	135	1.44	50	100	1850	Four diodes common cathode
VS-UFL250CB60⁽¹⁾	600	130	135	1.44	100	104	2200	Dual, common cathode
VS-UFL330FA60	600	243	90	1.65	200	98	2788	Dual, parallel
VS-UFL450CB60⁽¹⁾	600	250	133	1.32	100	97	2736	Dual, common cathode
VS-UFL80FA60	600	65	85	1.49	60	115	1900	Dual, parallel
VS-UFB130FA40	400	65	123	1.37	60	86	1400	Dual, parallel
VS-UFB201FA40	400	120	88	1.59	100	80	1300	Dual, parallel
VS-UFB211FA40	400	210	90	1.24	100	93	1740	Dual, parallel
VS-UFB280FA40	400	170	90	1.24	100	93	1740	Dual, parallel
VS-UFB310CB40⁽¹⁾	400	155	135	1.34	100	89	1840	Dual, common cathode
VS-UFB80FA40	400	40	130	1.39	30	68	900	Dual, parallel
VS-UFH280FA30	300	160	95	1.27	100	58	429	Dual, parallel
VS-UFB130FA20	200	65	132	1.13	60	42	295	Dual, parallel
VS-UFB280FA20	200	175	95	1.1	120	34	300	Dual, parallel
VS-UFB80FA20	200	40	137	1.08	30	34	184	Dual, parallel

Notes

⁽¹⁾ Not insulated package

⁽²⁾ See datasheet for device test conditions