

# HP Sonic-FRDs - Capsule Types

WESTCODE

Introducing a world-leading class of ultra fast and ultra soft recovery diode available from 1.7 kV to 4.5 kV in current ratings from 300 A to 2500 A. These diodes incorporate a unique manufacturing process and lifetime control to offer a class leading trade-off between conduction and switching losses. The wide safe operating area (SOA) makes them ideal as freewheeling diodes for snubberless IGBT and IGCT applications. In fact, any application which requires a fast, low loss diode. For example, traction, medium voltage drives, induction heating and pulsed power applications.

Type Part No. ➤ New	$V_{RRM}$ V	$I_{FAV}$ $T_K = 55^\circ C$ A	$I_{FSM}$ 10 ms 1/2 sine $V_R \leq 60\% V_{RRM}$ A	$I^2t$ A <sup>2</sup> s	Typ. Reverse Recovery Parameters $T_{JM}$ (50% Chord)					$V_{T0}$ @ $T_{JM}$ V	$r_T$ mΩ	$T_{JM}$ °C	$R_{thJK}$ 180° Sine K/W	Fig. No.
					$I_{rm}$ A	$t_{rr}$ μs	$Q_{ra}$ μC	@ $I_{FM}$ A	@ $-di_p/dt$ A/μs					
E0300YH400	4000	277	2630	$34.6 \times 10^3$	605	0.75	245	300	2000	2.170	3.800	150	0.073	W3
E0300YH450	4500	277	2630	$34.6 \times 10^3$	605	0.75	245	300	2000	2.170	3.800	150	0.073	W3
E0400YH200	2000	348	3550	$63.0 \times 10^3$	570	0.75	175	400	1500	1.768	2.286	150	0.073	W3
E0400YH250	2500	348	3550	$63.0 \times 10^3$	570	0.75	175	400	1500	1.768	2.286	150	0.073	W3
E0900NC400	4000	969	15270	$1.17 \times 10^6$	1340	2.20	1440	900	2000	2.140	1.150	150	0.020	W5
E0900NC450	4500	969	15270	$1.17 \times 10^6$	1340	2.20	1440	900	2000	2.140	1.150	150	0.020	W5
➤ E0900NH400	4000	969	15270	$1.17 \times 10^6$	1340	2.20	1440	900	2000	2.140	1.150	150	0.020	W47
➤ E0900NH450	4500	969	15270	$1.17 \times 10^6$	1340	2.20	1440	900	2000	2.140	1.150	150	0.020	W47
E1500NC200	2000	1557	15180	$1.15 \times 10^6$	1450	2.30	1550	1500	2000	1.670	0.358	150	0.020	W5
E1500NC250	2500	1557	15180	$1.15 \times 10^6$	1450	2.30	1550	1500	2000	1.670	0.358	150	0.020	W5
➤ E1500NH200	2000	1557	15180	$1.15 \times 10^6$	1450	2.30	1550	1500	2000	1.670	0.358	150	0.020	W47
➤ E1500NH250	2500	1557	15180	$1.15 \times 10^6$	1450	2.30	1550	1500	2000	1.670	0.358	150	0.020	W47
E1500VF400	4000	1918	23600	$2.78 \times 10^6$	1550	2.50	1940	1500	2000	2.491	0.277	150	0.013	W43
E1500VF450	4500	1918	23600	$2.78 \times 10^6$	1550	2.50	1940	1500	2000	2.491	0.277	150	0.013	W43
➤ E1500NC36P	3600	1280	17050	$1.45 \times 10^6$	1425	2.80	1880	1000	1000	1.417	0.656	140	0.019	W5
➤ E1500NC42P	4200	1280	17050	$1.45 \times 10^6$	1425	2.80	1880	1000	1000	1.417	0.656	140	0.019	W5
➤ E1500NC48P	4800	1280	17050	$1.45 \times 10^6$	1425	2.80	1880	1000	1000	1.417	0.656	140	0.019	W5
➤ E1500NH36P	3600	1280	17050	$1.45 \times 10^6$	1425	2.80	1880	1000	1000	1.417	0.656	140	0.019	W47
➤ E1500NH42P	4200	1280	17050	$1.45 \times 10^6$	1425	2.80	1880	1000	1000	1.417	0.656	140	0.019	W47
➤ E1500NH48P	4800	1280	17050	$1.45 \times 10^6$	1425	2.80	1880	1000	1000	1.417	0.656	140	0.019	W47
E2000NC140	1400	1568	15000	$1.13 \times 10^6$	1870	1.00	935	2000	4000	1.770	0.350	150	0.020	W5
E2000NC170	1700	1568	15000	$1.13 \times 10^6$	1870	1.00	935	2000	4000	1.770	0.350	150	0.020	W5
➤ E2000NH140	1400	1568	15000	$1.13 \times 10^6$	1870	1.00	935	2000	4000	1.770	0.350	150	0.020	W47
➤ E2000NH170	1700	1568	15000	$1.13 \times 10^6$	1870	1.00	935	2000	4000	1.770	0.350	150	0.020	W47
E2400TC400	4000	2227	25600	$3.29 \times 10^6$	2400	1.12	1330	2400	4000	2.039	0.598	150	0.008	W28
E2400TC450	4500	2227	25600	$3.29 \times 10^6$	2400	1.12	1330	2400	4000	2.039	0.598	150	0.008	W28
E2500VF200	2000	2516	28600	$4.10 \times 10^6$	1750	1.40	1350	2500	3000	1.628	0.205	150	0.013	W43
E2500VF250	2500	2516	28600	$4.10 \times 10^6$	1750	1.40	1350	2500	3000	1.628	0.205	150	0.013	W43



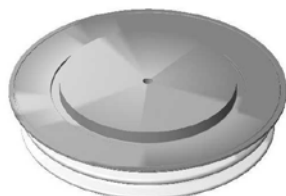
W3 Weight 140 g



W5 Weight 510 g



W28 Weight 1230 g



W43 Weight 800 g



W47 Weight 250 g

Outlines on pages  
O-01...O-24