

**RECTIFIER DEVICE - Phase Control Thyristors - Capsule Types**

Old Part Number	PDF Data Sheet Available	New Part Number	V <sub>DRM</sub> V <sub>RRM</sub> Range (Note 5) (V)	I <sub>T(AV)</sub> @ T <sub>sink</sub> 55°C (A)	I <sub>T(RMS)</sub> @ T <sub>sink</sub> 25°C (A)	I <sub>TSM(1)</sub> 10ms £60% V <sub>RRM</sub> (A)	I <sub>TSM(2)</sub> 10ms V <sub>R</sub> £10V (A)	I <sup>2</sup> t <sub>(2)</sub> 10ms £10V (A <sup>2</sup> s)	di/dt Non Rep/Rep (Note 4) (A / ms)	I <sub>GT</sub> /V <sub>GT</sub> @ 25°C (mA) (V)	I <sub>DRM</sub> I <sub>RRM</sub> at 125°C (mA)	I <sub>H</sub> @25°C (mA)	R <sub>th j-hs</sub>		V <sub>o</sub> r @ T <sub>j</sub> 125°C (Note 2) (V) (mW)	V <sub>TM</sub> at I <sub>TM</sub> @ T <sub>j</sub> 125°C (V) / (A)	Wt (Typ) (g)	Mounting Force (kN)	Outline No. (Note 3)		
													dc 180°sine (K/W)	120° Rect. (K/W)							
N086CH12-16	N	N0194WC120-160	1200-1600	194	392	1700	1950	1.90 x 10 <sup>4</sup>	- /500	150/3	20	600	0.135		1.570	2.290	2.5 / 405	70	3.3 - 5.5	101A212	
N105CH12-16	N	N0255WC120-160	1200-1600	255	500	2450	1950	0.363 x 10 <sup>5</sup>	- /500	150/3	20	600	0.135		0.900	1.790	1.9 / 556	70	3.3 - 5.5		
N170CH12-16	N	N0339WC120-160	1200-1600	339	674	4200	4620	1.07 x 10 <sup>5</sup>	- /500	150/3	20	600	0.095		1.080	1.300	2.0 / 720	70	3.3 - 5.5		
N195CH12-16	N	N0392WC120-160	1200-1600	392	780	4650	5120	131 x 10 <sup>3</sup>	1000/500	150/3	20	600	0.095		0.920	0.990	1.68 / 770	70	3.3 - 5.5		
N275CH02-08	N	N0491WC020-080	1200-1600	491	986	6000	6600	218 x 10 <sup>3</sup>	-/500	150/3	20	400	0.095		0.850	0.535	1.39 / 1000	70	3.3 - 5.5		
N282SH20-24*	Y	N060YS200-240	2000-2400	606	1201	7100	7810	305 x 10 <sup>3</sup>	600/300	200/3	40	500	0.050		1.140	0.781	2.35 / 1550	90	5.3 - 10.0	101A335	
N281SH12-18*	Y	N067YS120-180	1200-1800	676	1346	7500	8300	345 x 10 <sup>3</sup>	1000/500	150/3	40	500	0.050		1.090	0.587	2.0 / 1550	90	5.3 - 10.0		
N280SH12-16*	Y	N0734YS120-160	1200-1600	734	1465	8400	9240	427 x 10 <sup>3</sup>	1000/500	150/3	40	500	0.050		1.030	0.483	1.78 / 1550	90	5.3 - 10.0		
N283SH12-16*	Y	N0782YS120-160	1200-1600	782	1554	9420	10400	541 x 10 <sup>3</sup>	1000/500	150/3	40	500	0.050		0.920	0.450	1.62 / 1550	90	5.3 - 10.0		
N310SH02-06*	Y	N0992YS020-060	200-600	992	1995	11000	12100	732 x 10 <sup>3</sup>	1000/500	150/3	40	500	0.050		0.820	0.240	1.19 / 1550	90	5.3 - 10.0		
N200CH58-65	N	N0485LC580-650	5800-6500	485	970	4000	4400	96.8 x 10 <sup>3</sup>	- / -	300/4	60	1000	0.032	0.0388	1.350	2.100	2.40 / 500	340	10.0 - 20.0	101A216	
N255CH40-45	N	N0616LC400-450	4000-4500	616	1150	5250	5780	167 x 10 <sup>3</sup>	-/150	300/3	60	1000	0.032	0.0388	1.220	1.530	2.9 / 1100	340	10.0 - 20.0		
N257CH38-42	N	N0634LC380-420	3800-4200	634	1180	7000	7700	0.296 x 10 <sup>6</sup>	- / -	300/3	100	1000	0.032	0.0388	1.100	1.500	2.80 / 1100	340	10.0 - 20.0		
N260CH30-36	N	N0646LC300-360	3000-3600	646	1210	5700	6270	196 x 10 <sup>3</sup>	- / 200	300/3	60	1000	0.032	0.0388	1.210	1.360	2.71 / 1100	340	10.0 - 20.0		
N330SH20-26*	Y	N0910LS200-260	2000-2600	910	1788	9200	10100	510 x 10 <sup>3</sup>	600/300	300/3	60	1000	0.032	0.0388	1.040	0.606	2.07 / 1700	340	10.0 - 20.0		101A336
N350SH12-18*	Y	N1042LS120-180	1200-1800	1042	2072	11500	12650	800 x 10 <sup>3</sup>	1000/500	300/3	60	1000	0.032	0.0388	1.080	0.395	1.75 / 1700	340	10.0 - 20.0		
N370SH12-18*	Y	N1114LS120-180	1200-1800	1114	2214	12700	14000	980 x 10 <sup>3</sup>	1000/500	300/3	60	1000	0.032	0.0388	1.000	0.349	1.59 / 1700	340	10.0 - 20.0		
N520SH12-15*	Y	N1265LS120-150	1200-1800	1265	2517	15000	16000	1.280 x 10 <sup>6</sup>	1000/500	300/3	60	1000	0.032	0.0388	0.900	0.265	1.35 / 1700	340	10.0 - 20.0		
N320CH40-45	N	N0882NC400-450	4000-4500	882	1725	7700	8470	359 x 10 <sup>3</sup>	300/150	300/3	100	1000	0.024	0.029	1.300	0.920	2.77 / 1600	510	19.0 - 26.0	101A223	
N360CH30-38	N	N1010NC300-380	3000-3800	1010	1975	12100	13300	884 x 10 <sup>3</sup>	400/200	300/3	100	1000	0.024	0.029	1.170	0.687	2.43 / 1830	510	19.0 - 26.0		
N390CH30-36	N	N1132NC300-360	3000-3600	1132	2220	14300	15700	1.23 x 10 <sup>6</sup>	400/200	300/3	100	1000	0.024	0.029	1.150	0.510	2.08 / 1830	510	19.0 - 26.0		
N450SH20-26*	Y	N1297NS200-260	2000-2600	1297	2557	17600	19400	1.88 x 10 <sup>6</sup>	600/300	300/3	100	1000	0.024	0.029	1.030	0.380	2.0 / 2550	510	19.0 - 26.0		101A337
N490SH20-26*	Y	N1467NS200-260	2000-2600	1467	2912	21500	23600	2.78 x 10 <sup>6</sup>	1000/500	300/3	100	1000	0.024	0.029	1.000	0.272	1.69 / 2550	510	19.0 - 26.0		
N510SH16-20*	Y	N1547NS160-200	1600-2000	1547	3064	23300	25600	3.28 x 10 <sup>6</sup>	1000/500	300/3	100	1000	0.024	0.029	0.920	0.252	1.56 / 2550	510	19.0 - 26.0		
N540SH12-18*	Y	N1718NS120-180	1200-2000	1718	3450	27200	29900	4.47 x 10 <sup>6</sup>	1000/500	300/3	100	1000	0.024	0.029	0.979	0.169	1.41 / 2550	510	19.0 - 26.0		
N600SH12-16*	Y	N1802NS120-160	1200-1500	1802	3592	29600	32500	5.28 x 10 <sup>6</sup>	1000/500	300/3	100	1000	0.024	0.029	0.855	0.171	1.29 / 2550	510	19.0 - 26.0		
N610SH06-10*	Y	N2086NS060-100	600-1000	2086	4207	35000	38000	7.22 x 10 <sup>6</sup>	1000/500	300/3	100	1000	0.024	0.029	0.840	0.108	1.12 / 2550	510	19.0 - 26.0		
N410CH58-65	N	N0633NC580-650	5800-6500	633	1270	6650	7300	0.266 x 10 <sup>6</sup>	100/50	300/4	150	1000	0.024	0.029	1.380	1.640	3.02 / 1000	510	19.0 - 26.0	101A223	
N500CH38-42	N	N1159NC380-420	3800-4200	1159	2270	14500	16100	1.30 x 10 <sup>6</sup>	300/150	300/3	100	1000	0.022	0.027	1.100	0.574	2.15 / 1830	510	19.0 - 26.0		
N570CH30-36	N	N1314NC300-360	2000-3600	1314	2580	16630	18290	1.67 x 10 <sup>6</sup>	300/150	300/3	100	1000	0.022	0.027	1.000	0.437	2.11 / 2550	510	19.0 - 26.0		
N620SH24-30*	Y	N1479NS240-300	2400-3000	1479	2901	21000	23000	2.65 x 10 <sup>6</sup>	400/200	300/3	100	1000	0.022	0.027	0.920	0.342	1.80 / 2550	510	19.0 - 26.0		101A337
N680SH20-26*	Y	N1588NS200-260	2000-2600	1588	3138	22500	24750	3.06 x 10 <sup>6</sup>	300/150	300/3	100	1000	0.022	0.027	0.951	0.268	1.65 / 2550	510	19.0 - 26.0		
N740SH12-16*	Y	N2046NS120-160	1200-1600	2046	4141	29200	32200	5.18 x 10 <sup>6</sup>	300/150	300/3	100	1000	0.022	0.027	0.980	0.114	1.27 / 2550	510	19.0 - 26.0		
N560CH40-45	N	N1351VC400-450	4000-4500	1351	2645	17500	20000	2.00 x 10 <sup>6</sup>	300/150	300/3	150	1000	0.017	0.020	1.200	0.553	3.00 / 3220	1000	27.0 - 34.0	101A232	
N630CH30-36	N	N1661VC300-360	3000-3600	1661	3261	23000	25000	3.13 x 10 <sup>6</sup>	300/150	300/3	150	1000	0.017	0.020	1.040	0.350	2.17 / 3220	1000	27.0 / 34.0		
N640CH24-30	N	N1712VC240-300	2400-300	1712	3370	24500	30000	4.50 x 10 <sup>6</sup>	300/150	300/3	150	1000	0.017	0.020	1.050	0.320	2.08 / 3220	1000	27.0 - 34.0		
N760CH18-22	N	N2293VC180-220	1800-2200	2293	4575	33800	40000	8.00 x 10 <sup>6</sup>	300/150	300/3	150	1000	0.017	0.020	0.956	0.148	1.43 / 3220	1000	27.0 - 34.0		
N990CH12-16	N	N2500VC120-160	1200-1600	2500	5000	3700	45000	10.1 x 10 <sup>6</sup>	300/150	300/3	150	1000	0.017	0.020	0.880	0.124	1.28 / 3220	1000	27.0 - 34.0		
N635CH58-65	N	N1555ZC580-650	5800-6500	1555	3110	20000	22000	2.42 x 10 <sup>6</sup>	100/50	350/4	200	1000	0.011	0.012	1.200	0.600	1.80 / 1000	1700	27.0 - 47.0	101A281	
N750CH40-45	N	N2172ZC400-450	4000-4500	2172	4290	28000	33500	5.61 x 10 <sup>6</sup>	300/150	350/4	200	1000	0.011	0.012	1.350	0.294	2.23 / 3000	1700	27.0 - 47.0		
N850CH30-36	N	N2418ZC300-360	3000-3600	2418	4880	30000	36000	6.48 x 10 <sup>6</sup>	300/150	300/3	200	1000	0.011	0.012	1.160	0.246	1.90 / 3000	1700	27.0 - 47.0		
N880CH24-30	N	N2543ZC240-300	2400-3000	2543	4930	32000	39000	7.61 x 10 <sup>6</sup>	300/150	300/3	200	1000	0.011	0.012	0.780	0.274	1.60 / 3000	1700	27.0 - 47.0		
N900CH20-26	N	N3012ZC200-260	2000-2600	3012	5925	45100	49700	12.40 x 10 <sup>6</sup>	300/150	300/3	200	1000	0.011	0.012	0.920	0.160	1.40 / 3000	1700	27.0 - 47.0		
N980CH16-22	N	N3022ZC160-220	1600-2200	3022	5900	45600	55000	15.1 x 10 <sup>6</sup>	300/150	300/3	200	1000	0.011	0.012	0.880	0.164	1.37 / 3000	1700	27.0 - 47.0		
N1400CH14-20	N	N3533ZC140-200	1400-2000	3533	7060	50000	60000	18.0 x 10 <sup>6</sup>	300/150	300/3	200	1000	0.011	0.012	0.970	0.095	1.25 / 3000	1700	27.0 - 47.0		
N1600CH08-12	N	N4085ZC080-120	800-1200	4085	8165	64000	70000	24.5 x 10 <sup>6</sup>	300/150	300/3	200	1000	0.011	0.012	0.850	0.070	1.06 / 3000	1700	27.0 - 47.0		

N1063DH58-65	Y	N1847TD580-650	5300-6500	2010	3930	25200	28000	2.6 x 10 <sup>6</sup>	300/150	300/2	200	1000	0.011		1.200	0.385	2.00 / 2000	1230	63.0 - 77.0	101A325
N1263CH45-52	Y	N2503TC450-520	4500-5200	2500	4880	37800	42000	5.1 x 10 <sup>6</sup>	300/150	300/4	300	1000	0.011		1.00	0.250	2.0 / 4000	1230	63.0 - 77.0	
N1263DH45-52	N	N2503TC450-520	4500-5200	2500	4880	37800	42000	5.1 x 10 <sup>6</sup>	300/150	300/4	300	1000	0.011		1.00	0.250	2.0 / 4000	1230	63.0 - 77.0	
N1463CH36-42	Y	N2849TC360-420	3600-4200	2850	5590	46800	52000	8.2 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.011		0.180	0.970	1.87 / 5000	1230	63.0 - 77.0	
N1463DH36-42	N	N2849TC360-420	3600-4200	2850	5590	46800	52000	8.2 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.011		0.180	0.970	1.87 / 5000	1230	63.0 - 77.0	
N1663CH30-35	Y	N3184TC300-350	3600-4200	3180	5460	49500	55000	9.8 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.011		0.95	0.14	1.74 / 6000	1230	63.0 - 77.0	
N1663DH30-35	N	N3184TC300-350	3600-4200	3180	5460	49500	55000	9.8 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.011		0.95	0.14	1.74 / 6000	1230	63.0 - 77.0	
N1863CH20-28	Y	N3573TC200-280	2000-2800	3560	6040	54000	64000	10.1 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.011		0.9	0.1	1.5 / 6000	1230	63.0 - 77.0	
N1863DH20-28	N	N3573TC200-280	2000-2800	3560	6040	54000	64000	10.1 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.011		0.9	0.1	1.5 / 6000	1230	63.0 - 77.0	

N1083CH58-65	Y	N2840FC580-650	5800-6500	2310	4130	40000	45000	6.0 x 10 <sup>6</sup>	300/150	300/3	300	1000	0.009		0.29	1.23	2.10 / 3000	2800	81.0 - 98.0	101A322
N1283CH45-52	Y	N3764FC450-520	4500-5200	3764	6620	49500	55000	15.13 x 10 <sup>6</sup>	300/150	300/3	300	1000	0.0065		1.0	0.2	2.0 / 5000	2800	81.0 - 98.0	
N1483CH36-42	Y	N4156FC360-420	3600-4200	3400	5950	54000	60000	10.1 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.009		0.85	0.17	1.87 / 6000	2800	81.0 - 98.0	
N1683CH30-35	Y	N4803FC300-350	3000-3500	3890	6650	60000	67000	10.2 x 10 <sup>6</sup>	300/150	300/3	250	1000	0.009		0.94	0.11	1.60 / 6000	2800	81.0 - 98.0	
N1883CH20-28	Y	N5107FC200-280	2000-2800	4145	7115	67500	75000	10.8 x 10 <sup>6</sup>	300/150	300/3	300	1000	0.009		0.8	0.1	1.40 / 6000	2800	81.0 - 98.0	
N1983CH18-22	Y	N5946FC180-220	1800-2200	5946	10155	72000	80000	32.0 x 10 <sup>6</sup>	300/150	300/3	200	1000	0.0065		0.855	0.065	1.25 / 6000	2800	81.0 - 98.0	

The information contained herein is confidential and is protected by Copyright. The information may not be used or disclosed except with the written permission of and in the manner permitted by the proprietors Westcode Semiconductors Limited. In the interest of product improvement, Westcode reserves the right to change specifications at any time without prior notice.

Note 1  $I_{TSM} (8.3ms) = I^2 t (10ms) \times 0.943$  at initial temperature  $T_J 125^\circ C$

Note 2  $V_o$  Threshold Voltage  
 $r$  Slope resistance ) for conduction loss and heatsink calculations ( $T_J = 125^\circ C$ )

Note 3 Capsule outlines available with compressed heights:

Outline 101A281 25.6 / 26.9 = ordering code NxxxDHxx, e.g. N980DH12

Note 4 di/dt ratings refer to the sum of snubber discharge an

Note 5 A blocking derating factor of 0.13 per degree Centigrade for  $T_J$  below  $25^\circ C$