

Medium Voltage Thyristors - Capsule Types

WESTCODE

Medium voltage applications place additional demands on phase controlled thyristors. To meet these demands we have developed a comprehensive range of thyristors optimised for medium voltage applications. As voltages increase, so do switching losses and turn-off time to a point where they become significant in line frequency applications. Our patented distributed gate architecture ensures excellent switching performance over a wide range of voltage, current and di/dt. Device lifetime is also engineered to achieve an optimum balance between conduction losses, commutation losses and turn-off time to give maximum power handling from line frequency to 400 Hz. This also gives significant benefits when series or parallel connection of devices is required. Medium voltage thyristors are available from 3.2 kV up to 6.5 kV with silicon diameters from 38 mm to 100 mm making them particularly suitable for high power converters such as medium voltage DC drives, medium voltage soft starts and utility applications such as HVDC, static VAr compensators, excitation and transfer switches.

We recognise the importance of reliability in these large, capital intensive applications and as a result we subject these parts to extended levels of both routine and type testing to ensure that your investment gives years of trouble free service.

Type		V_{DRM} V_{RRM}	I_{TAV} $T_K = 55^\circ C$	I_{TSM}	I^2t 10 ms ½ sine $V_R \leq 60\% V_{RRM}$	t_q @ 200 V/µs	Typ. Reverse Recovery Charge $T_{JM}, 50\% \text{ Chord}$			V_{TO}	r_T	T_{JM}	R_{thJK}		Fig. No.
Part No. ➤ New	Old Part No.	V	A	A	A ² s	µs	Q_{ra} µC	@ I_{TM} A	@-di/dt A/µs	@ T_{JM} V	mΩ	°C	180° Sine K/W	120° Rect. K/W	
K0349LC600	P201CH60	6000	349	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0470	0.0490	W10
K0349LC650	P201CH65	6500	349	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0470	0.0490	W10
➤ K0349LG600	N/A	6000	349	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0470	0.0490	W56
➤ K0349LG650	N/A	6500	349	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0470	0.0490	W56
➤ K0443LC600	N/A	6000	443	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0320	0.0388	W10
➤ K0443LC650	N/A	6500	443	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0320	0.0388	W10
➤ K0443LG600	N/A	6000	443	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0320	0.0388	W56
➤ K0443LG650	N/A	6500	443	4800	115 x 10 ³	900-1200	2100	1000	10	1.568	2.428	115	0.0320	0.0388	W56
➤ K0682LC360	KX190LC360	3600	682	6350	202 x 10 ³	650-800	1050	1000	10	1.211	1.182	125	0.0320	0.0388	W10
➤ K0682LC420	KX190LC420	4200	682	6350	202 x 10 ³	650-800	1050	1000	10	1.211	1.182	125	0.0320	0.0388	W10
➤ K0682LG360	N/A	3600	682	6350	202 x 10 ³	650-800	1050	1000	10	1.211	1.182	125	0.0320	0.0388	W56
➤ K0682LG420	N/A	4200	682	6350	202 x 10 ³	650-800	1050	1000	10	1.211	1.182	125	0.0320	0.0388	W56
K0769NC600	P410CH60	6000	769	8600	370 x 10 ³	900-1200	2050	1000	10	1.566	1.172	115	0.0240	0.0290	W11
K0769NC650	P410CH65	6500	769	8600	370 x 10 ³	900-1200	2050	1000	10	1.566	1.172	115	0.0240	0.0290	W11
➤ K0769NG600	N/A	6000	769	8600	370 x 10 ³	900-1200	2050	1000	10	1.566	1.172	115	0.0240	0.0290	W57
➤ K0769NG650	N/A	6500	769	8600	370 x 10 ³	900-1200	2050	1000	10	1.566	1.172	115	0.0240	0.0290	W57
K0890NC360	R295CH36	3600	890	10900	594 x 10 ³	350-550	1500	1000	10	1.516	0.800	125	0.0240	0.0290	W11
K0890NC420	R295CH42	4200	890	10900	594 x 10 ³	350-550	1500	1000	10	1.516	0.800	125	0.0240	0.0290	W11
➤ K1120NC360	KX192NC360	3600	1120	13500	911 x 10 ³	650-1000	2600	1000	10	1.092	0.546	125	0.0240	0.0271	W11
➤ K1120NC420	KX192NC420	4200	1120	13500	911 x 10 ³	650-1000	2600	1000	10	1.092	0.546	125	0.0240	0.0271	W11
➤ K1120NG360	N/A	3600	1120	13500	911 x 10 ³	650-1000	2600	1000	10	1.092	0.546	125	0.0240	0.0271	W57
➤ K1120NG420	N/A	4200	1120	13500	911 x 10 ³	650-1000	2600	1000	10	1.092	0.546	125	0.0240	0.0271	W57
K1121NC320	P440CH32	3200	1121	15000	1.13 x 10 ⁶	400-500	1000	1000	10	1.098	0.542	125	0.0240	0.0290	W11
K1121NC360	P440CH36	3600	1121	15000	1.13 x 10 ⁶	400-500	1000	1000	10	1.098	0.542	125	0.0240	0.0290	W11
K1197NC300	P480CH30	3000	1197	10646	567 x 10 ³	200-300	1400	1000	10	1.210	0.430	125	0.0240	0.0290	W11
K1197NC320	P480CH32	3200	1197	10646	567 x 10 ³	200-300	1400	1000	10	1.210	0.430	125	0.0240	0.0290	W11
K1351VC600	KX120VC600	6000	1351	14300	1.02 x 10 ⁶	800-1500	4500	2000	10	1.410	0.600	115	0.0130	0.0145	W12
K1351VC650	KX120VC650	6500	1351	14300	1.02 x 10 ⁶	800-1500	4500	2000	10	1.410	0.600	115	0.0130	0.0145	W12
K1351VF600	KX120VF600	6000	1351	14300	1.02 x 10 ⁶	800-1500	4500	2000	10	1.410	0.600	115	0.0130	0.0145	W62
K1351VF650	KX120VF650	6500	1351	14300	1.02 x 10 ⁶	800-1500	4500	2000	10	1.410	0.600	115	0.0130	0.0145	W62
K1947ZC400	P855CH40	4000	1947	25000	3.13 x 10 ⁶	600-700	3500	1000	10	1.221	0.425	125	0.0110	0.0119	W13
K1947ZC440	P855CH44	4400	1947	25000	3.13 x 10 ⁶	600-700	3500	1000	10	1.221	0.425	125	0.0110	0.0119	W13
K1947ZD400	P855DH40	4000	1947	25000	3.13 x 10 ⁶	600-700	3500	1000	10	1.221	0.425	125	0.0110	0.0119	W46
K1947ZD440	P855DH44	4400	1947	25000	3.13 x 10 ⁶	600-700	3500	1000	10	1.221	0.425	125	0.0110	0.0119	W46
➤ K2065VC360	KX162VC360	3600	2065	28000	3.92 x 10 ⁶	400-700	4300	2000	10	1.121	0.291	125	0.0130	0.0145	W12
➤ K2065VC420	KX162VC420	4200	2065	28000	3.92 x 10 ⁶	400-700	4300	2000	10	1.121	0.291	125	0.0130	0.0145	W12
➤ K2065VF360	KX162VF360	3600	2065	28000	3.92 x 10 ⁶	400-700	4300	2000	10	1.121	0.291	125	0.0130	0.0145	W62
➤ K2065VF420	KX120VF650	4200	2065	28000	3.92 x 10 ⁶	400-700	4300	2000	10	1.121	0.291	125	0.0130	0.0145	W62
K2095ZC360	P880CH36	3600	2095	18200	1.66 x 10 ⁶	400-500	2400	2000	10	1.502	0.296	125	0.0110	0.0119	W13
K2095ZC420	P880CH42	4200	2095	18200	1.66 x 10 ⁶	400-500	2400	2000	10	1.502	0.296	125	0.0110	0.0119	W13
K2095ZD360	P880DH36	3600	2095	18200	1.66 x 10 ⁶	400-500	2400	2000	10	1.502	0.296	125	0.0110	0.0119	W46
K2095ZD420	P880DH42	4200	2095	18200	1.66 x 10 ⁶	400-500	2400	2000	10	1.502	0.296	125	0.0110	0.0119	W46
K2359TC600	P1063CH60	6000	2359	27000	3.65 x 10 ⁶	1100-1500	6800	2000	10	1.391	0.360	115	0.0085	0.0092	W14
K2359TC650	P1063CH65	6500	2359	27000	3.65 x 10 ⁶	1100-1500	6800	2000	10	1.391	0.360	115	0.0085	0.0092	W14
K2359TD600	N/A	6000	2359	27000	3.65 x 10 ⁶	1100-1500	6800	2000	10	1.391	0.360	115	0.0085	0.0092	W51
K2359TD650	N/A	6500	2359	27000	3.65 x 10 ⁶	1100-1500	6800	2000	10	1.391	0.360	115	0.0085	0.0092	W51
K2623TC450	R1263CH45	4500	2623	27000	3.65 x 10 ⁶	500-1000	2600	2000	10	1.421	0.295	125	0.0080	0.0089	W14
K2623TC480	R1263CH48	4800	2623	27000	3.65 x 10 ⁶	500-1000	2600	2000	10	1.421	0.295	125	0.0080	0.0089	W14
K2623TC520	R1263CH52	5200	2623	27000	3.65 x 10 ⁶	500-1000	2600	2000	10	1.421	0.295	125	0.0080	0.0089	W14
K2623TD450	N/A	4500	2623	27000	3.65 x 10 ⁶	500-1000	2600	2000	10	1.421	0.295	125	0.0080	0.0089	W51
K2623TD480	N/A	4800	2623	27000	3.65 x 10 ⁶	500-1000	2600	2000	10	1.421	0.295	125	0.0080	0.0089	W51
K2623TD520	N/A	5200	2623	27000	3.65 x 10 ⁶	500-1000	2600	2000	10	1.421	0.295	125	0.0080	0.0089	W51