Phase Control Thyristors

IXYS UK provides one of the most comprehensive ranges of standard phase control thyristors in the industry.

Devices with voltage ranges from 400V to 6500V are available, making them suitable for applications with line voltages from 100V to 3600V (higher voltage applications are now served by our range of Medium Voltage Thyristors). IXYS UK Westcode Ltd. is a leading supplier of phase control products into demanding markets such as industrial DC drives, controlled rectifiers, marine/rail propulsion systems, wind power converters, electrochemical power supplies and soft starters. These devices are optimised to give low conduction losses and are primarily intended for applications with line frequencies up to 400Hz.

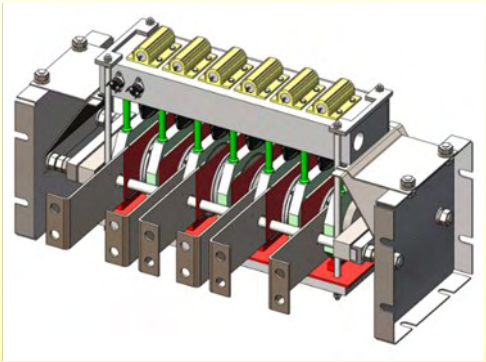
The Wespack outline (WPxx) is a new concept in phase control thyristors for applications requiring devices rated to 2200V. It gives the maximum power rating for weight and volume without compromising on quality and reliability. It also gives the maximum current rating and lowest thermal resistance for the package size.

Features and benefits

- Available in current ratings up to 6974A and voltage ratings up to 6500V
- Fully hermetic pressure contact construction
- New, optimised parts available with lower thermal resistance and higher surge ratings
- New designs have maximum power to package ratio

Applications

- Industrial Drives
- Wind Power Converters
- Soft Starters
- Excitation
- Utilities
- Controlled Rectifiers
- UPS Systems
- DC Drives



New Advanced High Power Phase Control Thyristors

Utilising the latest low temperature sintering technology, IXYS UK is proud to present it's newest large area phase control thyristors thyristors.

This range is manufactured using a 96mm silicon die, alloyed to a metal disc and encapsulated in fully hermetic ceramic packages with thicknesses of 26mm or 35mm.

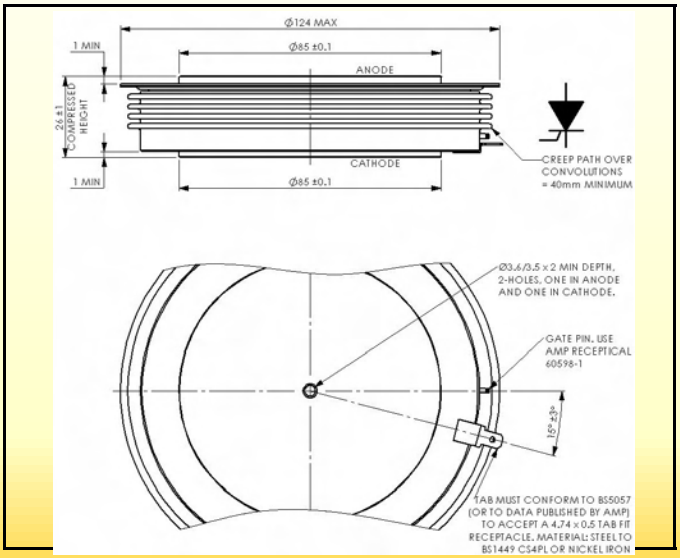
These new designs benefit from an increased electrical performance in a smaller package than older designs as well as improved thermal performance giving them a higher current density.

Typical applications include:

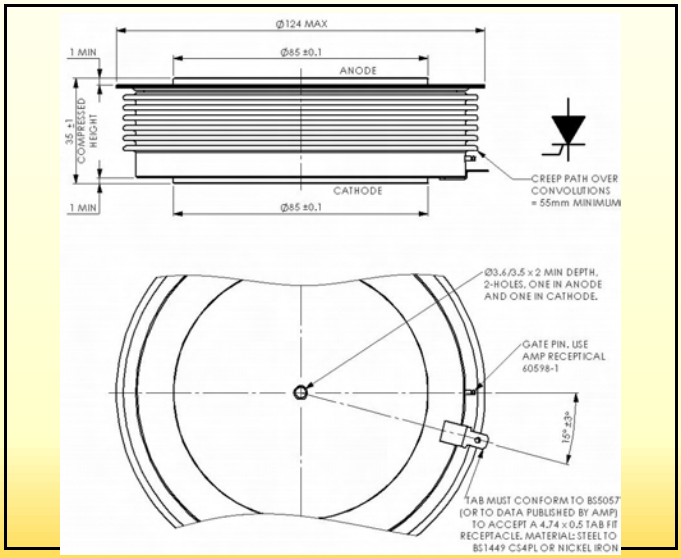
- Industrial drives
- Wind Power Converters
- Sort Starters
- Excitation
- Controlled rectifiers
- UPS Systems
- DC Drives

Part No.	V_{DRM}/V_{RRM} V	I_{TAV} A	I_{TSM} kA	V_{T0} @T_{JM} - 125°C V	r_T @T_{JM} - 125°C mΩ	R_{THJK} DSC K/W
N4165EE400	4000	4165	56.0	0.977	0.177	0.006
N4165EE450	4500					
N4650EA400	4000	4650	56.0	0.977	0.177	0.005
N4650EA450	4500					
N5715EE240	2400	5715	80.0	0.84	0.085	0.006
N5715EE280	2800					
N6405EA240	2400	6405	80.0	0.84	0.085	0.005
N6405EA280	2800					

W107 – 101A411 EA Housing



W108 – 101A410 EE Housing



Full product range

Stud Types

	V_{DRM}	I_{TAV}	I_{TSM}	I^2t	V_{T0}	r_T	T_{JM}	R_{thJC}		Fig.
	V_{RRM}	T_C=55°C	10ms 1/2 sine				@T_{JM}	DC	120°	
			V_R - ≤ 60% V_{RRM}					180° sine	Rect.	
Part No.	V	A	A	A^2s	V	mΩ	°C	K/W	K/W	
N0180SH120	1200	180	2450	30.0×10^3	0.900	1.790	125	0.2300	0.2800	W17
N0180SH160	1600	180	2450	30.0×10^3	0.900	1.790	125	0.2300	0.2800	W17
N0335SC120	1200	335	4650	108×10^3	0.920	0.990	125	0.1200	0.1400	W18
N0335SC160	1600	335	4650	108×10^3	0.920	0.990	125	0.1200	0.1400	W18
N0416SC040	400	416	6000	180×10^3	0.850	0.535	125	0.1200	0.1400	W18
N0416SC080	800	416	6000	180×10^3	0.850	0.535	125	0.1200	0.1400	W18

Capsule Types

	V_{DRM}	I_{TAV}	I_{TSM}	I^2t	V_{T0}	r_T	T_{JM}	R_{thJC}		Fig.
	V_{RRM}	T_C=55°C	10ms 1/2 sine				@T_{JM}	DC	120°	
			V_R - ≤ 60% V_{RRM}					180° sine	Rect.	
Part No.	V	A	A	A^2s	V	mΩ	°C	K/W	K/W	
N0465WN140	1400	465	4500	101×10^3	0.900	0.850	125	0.0800	0.0912	W90
N0465WN160	1600	465	4500	101×10^3	0.900	0.850	125	0.0800	0.0912	W90
N0530YN220	2200	530	6300	198×10^3	1.100	1.250	125	0.0480	0.0494	W91
N0530YN250	2500	530	6300	198×10^3	1.100	1.250	125	0.0480	0.0494	W91
N0616LC400	4000	616	5250	138×10^3	1.220	1.530	125	0.0320	0.0393	W10
N0616LC450	4500	616	5250	138×10^3	1.220	1.530	125	0.0320	0.0393	W10
N0634LC380	3800	634	7000	245×10^3	1.100	1.500	125	0.0320	0.0393	W10
N0634LC420	4200	634	7000	245×10^3	1.100	1.500	125	0.0320	0.0393	W10
N0646LC300	3000	646	5700	162×10^3	1.210	1.360	125	0.0320	0.0393	W10
N0646LC360	3600	646	5700	162×10^3	1.210	1.360	125	0.0320	0.0393	W10
N0795YN140	1400	795	9450	444×10^3	0.950	0.450	125	0.0480	0.0494	W91
N0795YN180	1800	795	9450	444×10^3	0.950	0.450	125	0.0480	0.0494	W91
N0882NC400	4000	882	7700	296×10^3	1.300	0.920	125	0.0240	0.0273	W11
N0882NC450	4500	882	7700	296×10^3	1.300	0.920	125	0.0240	0.0273	W11
N0910LC200	2000	910	9200	423×10^3	1.040	0.606	125	0.0320	0.0393	W10
N0910LC260	2600	910	9200	423×10^3	1.040	0.606	125	0.0320	0.0393	W10
N1010NC300	3000	1010	12100	732×10^3	1.170	0.687	125	0.0240	0.0273	W11
N1010NC380	3800	1010	12100	732×10^3	1.170	0.687	125	0.0240	0.0273	W11
N1075LN180	1800	1240	15750	1.24×10^6	0.850	0.320	130	0.0330	0.0371	W92
N1132NC300	3000	1132	14300	1.02×10^6	1.150	0.510	125	0.0240	0.0271	W11
N1132NC320	3200	1132	14300	1.02×10^6	1.150	0.510	125	0.0240	0.0271	W11
N1140LN140	1400	1315	17500	1.53×10^6	0.820	0.280	130	0.0330	0.0371	W92
N1159NC380	3800	1159	14500	1.05×10^6	1.100	0.574	125	0.0220	0.0255	W11
N1159NC420	4200	1159	14500	1.05×10^6	1.100	0.574	125	0.0220	0.0255	W11
N1174JK200	2000	1174	13200	870×10^3	1.000	0.416	125	0.0270	0.0314	WP1
N1174JK220	2200	1174	13200	870×10^3	1.000	0.416	125	0.0270	0.0314	WP1
N1263JK160	1600	1263	15000	1.13×10^6	1.015	0.332	125	0.0270	0.0314	WP1
N1263JK180	1800	1263	15000	1.13×10^6	1.015	0.332	125	0.0270	0.0314	WP1
N1351VC400†	4000	1351	17500	1.53×10^6	1.200	0.553	125	0.0170	0.0206	W12
N1351VC450†	4500	1351	17500	1.53×10^6	1.200	0.553	125	0.0170	0.0206	W12
N1351VF400†	4000	1351	17500	1.53×10^6	1.200	0.553	125	0.0170	0.0206	W62
N1351VF450†	4500	1351	17500	1.53×10^6	1.200	0.553	125	0.0170	0.0206	W62
N1366JK080	800	1366	15900	1.26×10^6	0.985	0.270	125	0.0270	0.0314	WP1
N1366JK120	1200	1366	15900	1.26×10^6	0.985	0.270	125	0.0270	0.0314	WP1
N1366JK140	1400	1366	15900	1.26×10^6	0.985	0.270	125	0.0270	0.0314	WP1

Full product range

	V_{DRM}	I_{TAV}	I_{TSM}	I^2t	V_{T0}	r_T	T_{JM}	R_{thJC}		Fig.
	V_{RRM}	T_C=55°C	10ms 1/2 sine				@T_{JM}	DC	120°	
			V_R - ≤ 60% V_{RRM}					180° sine	Rect.	
Part No.	V	A	A	A^2s	V	mΩ	°C	K/W	K/W	
N1449QL200	2000	1410	17300	1.50×10^6	1.060	0.317	125	0.0230	0.0272	WP6
N1449QL220	2200	1410	17300	1.50×10^6	1.060	0.317	125	0.0230	0.0272	WP6
N1467NC200	2000	1467	21500	2.31×10^6	1.000	0.272	125	0.0240	0.0271	W11
N1467NC260	2600	1467	21500	2.31×10^6	1.000	0.272	125	0.0240	0.0271	W11
N1547NC160	1600	1547	23300	2.71×10^6	0.920	0.252	125	0.0240	0.0271	W11
N1547NC200	2000	1547	23300	2.71×10^6	0.920	0.252	125	0.0240	0.0271	W11
N1581QL160	1600	1535	19100	1.82×10^6	1.022	0.253	125	0.0230	0.0270	WP6
N1581QL180	1800	1535	19100	1.82×10^6	1.022	0.253	125	0.0230	0.0270	WP6
N1651QK200	2000	1651	17300	1.50×10^6	1.060	0.317	125	0.0180	0.0217	WP2
N1651QK220	2200	1651	17300	1.50×10^6	1.060	0.317	125	0.0180	0.0217	WP2
N1661VC300†	3000	1661	23000	2.65×10^6	1.040	0.350	125	0.0170	0.0206	W12
N1661VC360†	3600	1661	23000	2.65×10^6	1.040	0.350	125	0.0170	0.0206	W12
N1661VF300†	3000	1661	23000	2.65×10^6	1.040	0.350	125	0.0170	0.0206	W62
N1661VF360†	3600	1661	23000	2.65×10^6	1.040	0.350	125	0.0170	0.0206	W62
N1718NC120	1200	1718	27200	3.70×10^6	0.979	0.169	125	0.0240	0.0271	W11
N1718NC180	1800	1718	27200	3.70×10^6	0.979	0.169	125	0.0240	0.0271	W11
N1718NC200	2000	1718	27200	3.70×10^6	0.979	0.169	125	0.0240	0.0271	W11
N1725MC320 #	3200	1725	20000	2.00×10^6	1.020	0.396	125	0.015	0.0165	W70
N1725MC360 #	3600	1725	20000	2.00×10^6	1.020	0.396	125	0.015	0.0165	W70
N1802NC120	1200	1802	29600	4.38×10^6	0.855	0.171	125	0.0240	0.0271	W11
N1802NC160	1600	1802	29600	4.38×10^6	0.855	0.171	125	0.0240	0.0271	W11
N1806QK160	1600	1806	19100	1.82×10^6	1.022	0.253	125	0.0180	0.0217	WP2
N1806QK180	1800	1806	19100	1.82×10^6	1.022	0.253	125	0.0180	0.0217	WP2
N1817QL080	800	1760	22000	2.42×10^6	0.955	0.177	125	0.0230	0.0272	WP6
N1817QL120	1200	1760	22000	2.42×10^6	0.955	0.177	125	0.0230	0.0272	WP6
N1817QL140	1400	1760	22000	2.42×10^6	0.955	0.177	125	0.0230	0.0272	WP6
N2015ML200	2000	2015	32400	5.25×10^6	0.883	0.210	125	0.0180	0.0201	WP5
N2015ML220	2200	2015	32400	5.25×10^6	0.883	0.210	125	0.0180	0.0201	WP5
N2055MC260 #	2600	2055	24500	3.00×10^6	1.000	0.250	125	0.015	0.0165	W70
N2055MC280 #	2800	2055	24500	3.00×10^6	1.000	0.250	125	0.015	0.0165	W70
N2083QK080	800	2083	22000	2.42×10^6	0.955	0.177	125	0.0180	0.0217	WP2
N2083QK120	1200	2083	22000	2.42×10^6	0.955	0.177	125	0.0180	0.0217	WP2
N2083QK140	1400	2083	22000	2.42×10^6	0.955	0.177	125	0.0180	0.0217	WP2
N2086NC060	600	2086	35000	6.13×10^6	0.840	0.108	125	0.0240	0.0271	W11
N2086NC100	1000	2086	35000	6.13×10^6	0.840	0.108	125	0.0240	0.0271	W11
N2154JK020	200	2154	22700	2.58×10^6	0.890	0.107	140	0.0270	0.0314	WP1
N2154JK040	400	2154	22700	2.58×10^6	0.890	0.107	140	0.0270	0.0314	WP1
N2154JK060	600	2154	22700	2.58×10^6	0.890	0.107	140	0.0270	0.0314	WP1
N2172ZC400	4000	2172	28000	3.92×10^6	1.350	0.294	125	0.0110	0.0120	W13
N2172ZC450	4500	2172	28000	3.92×10^6	1.350	0.294	125	0.0110	0.0120	W13
N2172ZD400	4000	2172	28000	3.92×10^6	1.350	0.294	125	0.0110	0.0120	W46
N2172ZD450	4500	2172	28000	3.92×10^6	1.350	0.294	125	0.0110	0.0120	W46
N2191ML160	1600	2191	34500	5.95×10^6	0.940	0.154	125	0.0180	0.0201	WP5
N2191ML180	1800	2191	34500	5.95×10^6	0.940	0.154	125	0.0180	0.0201	WP5
N2293VC180 x	1800	2293	33800	5.7×10^6	0.956	0.148	125	0.0170	0.0206	W12
N2293VC220 x	2200	2293	33800	5.7×10^6	0.956	0.148	125	0.0170	0.0206	W12
N2293VF180 x	1800	2293	33800	5.7×10^6	0.956	0.148	125	0.0170	0.0206	W62
N2293VF220 x	2200	2293	33800	5.7×10^6	0.956	0.148	125	0.0170	0.0206	W62
N2367MK200	2000	2367	32400	5.25×10^6	0.883	0.210	125	0.0140	0.0157	WP3
N2367MK220	2200	2367	32400	5.25×10^6	0.883	0.210	125	0.0140	0.0157	WP3
N2418ZC300	3000	2418	30000	4.50×10^6	1.160	0.246	125	0.0110	0.0119	W13
N2418ZC360	3600	2418	30000	4.50×10^6	1.160	0.246	125	0.0110	0.0119	W13
N2418ZD300	3000	2418	30000	4.50×10^6	1.160	0.246	125	0.0110	0.0119	W46

Full product range

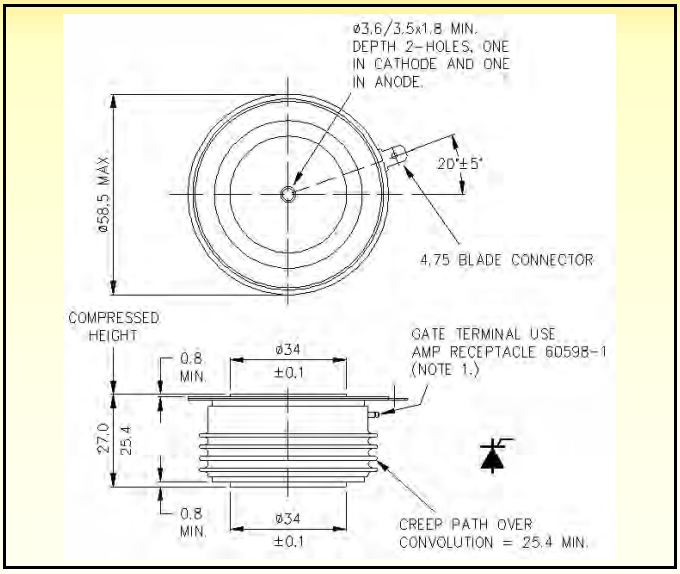
	V_{DRM}	I_{TAV}	I_{TSM}	I^2t	V_{T0}	r_T	T_{JM}	R_{thJC}		Fig.
	V_{RRM}	T_C=55°C	10ms 1/2 sine				@T_{JM}	DC	120°	
			V_R - ≤ 60% V_{RRM}					180° sine	Rect.	
Part No.	V	A	A	A^2s	V	mΩ	°C	K/W	K/W	
N2500VC120 x	1200	2500	37000	6.85×10^6	0.880	0.124	125	0.0170	0.0206	W12
N2500VC160 x	1600	2500	37000	6.85×10^6	0.880	0.124	125	0.0170	0.0206	W12
N2500VF120 x	1200	2500	37000	6.85×10^6	0.880	0.124	125	0.0170	0.0206	W62
N2500VF160 x	1600	2500	37000	6.85×10^6	0.880	0.124	125	0.0170	0.0206	W62
N2520ML080	800	2520	38200	7.30×10^6	0.980	0.090	125	0.0180	0.0201	WP5
N2520ML120	1200	2520	38200	7.30×10^6	0.980	0.090	125	0.0180	0.0201	WP5
N2520ML140	1400	2520	38200	7.30×10^6	0.980	0.090	125	0.0180	0.0201	WP5
N2543ZC240	2400	2543	32000	5.12×10^6	0.780	0.274	125	0.0110	0.0119	W13
N2543ZC300	3000	2543	32000	5.12×10^6	0.780	0.274	125	0.0110	0.0119	W13
N2543ZD240	2400	2543	32000	5.12×10^6	0.780	0.274	125	0.0110	0.0119	W46
N2543ZD300	3000	2543	32000	5.12×10^6	0.780	0.274	125	0.0110	0.0119	W46
N2593MK160	1600	2593	34500	5.95×10^6	0.940	0.154	125	0.0140	0.0157	WP3
N2593MK180	1800	2593	34500	5.95×10^6	0.940	0.154	125	0.0140	0.0157	WP3
N2600MC160	1600	2600	30000	4.50×10^6	0.950	0.130	125	0.015	0.0165	W70
N2600MC180	1800	2600	30000	4.50×10^6	0.950	0.130	125	0.015	0.0165	W70
N2825TE400	4000	2825	36900	6.81×10^6	1.210	0.270	125	0.0080	0.0085	W82
N2825TE450	4500	2825	36900	6.81×10^6	1.210	0.270	125	0.0080	0.0085	W82
N2825TJ400	4000	2825	36900	6.81×10^6	1.210	0.270	125	0.0080	0.0085	W81
N2825TJ450	4500	2825	36900	6.81×10^6	1.210	0.270	125	0.0080	0.0085	W81
N2830HE260 #	2600	2830	36000	6.48×10^6	0.930	0.150	125	0.0125	0.0138	W80
N2830HE280 #	2800	2830	36000	6.48×10^6	0.930	0.150	125	0.0125	0.0138	W80
N2900QL020	200	2900	28000	3.92×10^6	0.850	0.080	150	0.0230	0.0272	WP6
N2900QL040	400	2900	28000	3.92×10^6	0.850	0.080	150	0.0230	0.0272	WP6
N2900QL060	600	2900	28000	3.92×10^6	0.850	0.080	150	0.0230	0.0272	WP6
N3012ZC200	2000	3012	45100	10.2×10^6	0.920	0.160	125	0.0110	0.0119	W13
N3012ZC260	2600	3012	45100	10.2×10^6	0.920	0.160	125	0.0110	0.0119	W13
N3012ZD200	2000	3012	45100	10.2×10^6	0.920	0.160	125	0.0110	0.0119	W46
N3012ZD260	2600	3012	45100	10.2×10^6	0.920	0.160	125	0.0110	0.0119	W46
N3022MK080	800	3022	38200	7.30×10^6	0.981	0.090	125	0.0140	0.0157	WP3
N3022MK120	1200	3022	38200	7.30×10^6	0.981	0.090	125	0.0140	0.0157	WP3
N3022MK140	1400	3022	38200	7.30×10^6	0.981	0.090	125	0.0140	0.0157	WP3
N3029ZC240	2400	3029	38200	7.30×10^6	0.947	0.154	125	0.0110	0.0119	W13
N3029ZC280	2800	3029	38200	7.30×10^6	0.947	0.154	125	0.0110	0.0119	W13
N3029ZD240	2400	3029	38200	7.30×10^6	0.947	0.154	125	0.0110	0.0119	W46
N3029ZD280	2800	3029	38200	7.30×10^6	0.947	0.154	125	0.0110	0.0119	W46
N3165HA260 #	2600	3165	36000	6.48×10^6	0.930	0.150	125	0.0105	0.0118	W79
N3165HA280 #	2800	3165	36000	6.48×10^6	0.930	0.150	125	0.0105	0.0118	W79
N3175HE160 #	1600	3175	45500	10.4×10^6	0.900	0.110	125	0.0125	0.0138	W80
N3175HE180 #	1800	3175	45500	10.4×10^6	0.900	0.110	125	0.0125	0.0138	W80
N3229QK020	200	3229	28000	3.92×10^6	0.926	0.067	140	0.0180	0.0217	WP2
N3229QK040	400	3229	28000	3.92×10^6	0.926	0.067	140	0.0180	0.0217	WP2
N3229QK060	600	3229	28000	3.92×10^6	0.926	0.067	140	0.0180	0.0217	WP2
N3533ZC180	1800	3533	50000	12.5×10^6	0.970	0.095	125	0.0110	0.0120	W13
N3533ZC220	2200	3533	50000	12.5×10^6	0.970	0.095	125	0.0110	0.0120	W13
N3533ZD180	1800	3533	50000	12.5×10^6	0.970	0.095	125	0.0110	0.0120	W46
N3533ZD220	2200	3533	50000	12.5×10^6	0.970	0.095	125	0.0110	0.0120	W46
N3565HA160 #	1600	3565	45500	10.4×10^6	0.900	0.110	125	0.0105	0.0118	W79
N3565HA180 #	1800	3565	45500	10.4×10^6	0.900	0.110	125	0.0105	0.0118	W79
N3597ML020	200	3597	45400	10.3×10^6	0.840	0.053	140	0.0180	0.0201	WP5
N3597ML040	400	3597	45400	10.3×10^6	0.840	0.053	140	0.0180	0.0201	WP5
N3597ML060	600	3597	45400	10.3×10^6	0.840	0.053	140	0.0180	0.0201	WP5
N3790TE240	2400	3790	49500	12.3×10^6	0.900	0.150	125	0.0080	0.0084	W82
N3790TE280	2800	3790	49500	12.3×10^6	0.900	0.150	125	0.0080	0.0084	W82
N3790TJ240	2400	3790	49500	12.3×10^6	0.900	0.150	125	0.0080	0.0084	W81
N3790TJ280	2800	3790	49500	12.3×10^6	0.900	0.150	125	0.0080	0.0084	W81

Full product range

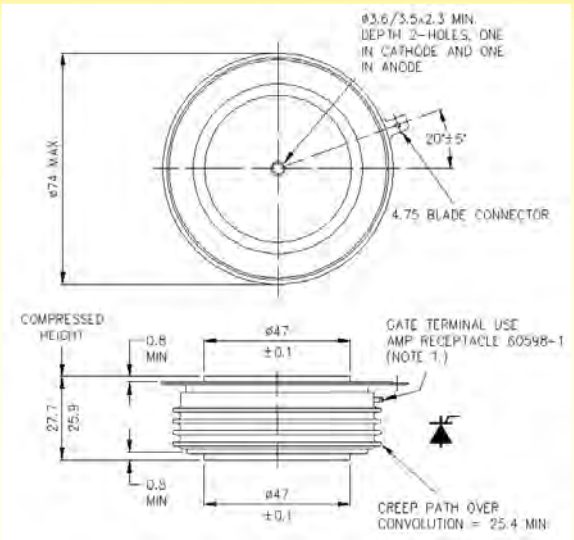
	V_{DRM}	I_{TAV}	I_{TSM}	I^2t	V_{T0}	r_T	T_{JM}	R_{thJC}		Fig.
	V_{RRM}	T_C=55°C	10ms 1/2 sine				@T_{JM}	DC	120°	
			V_R - ≤ 60% V_{RRM}					180° sine	Rect.	
Part No.	V	A	A	A^2s	V	mΩ	°C	K/W	K/W	
N3839TC300†	3000	3839	49500	12.25 x 10^6	0.950	0.140	125	0.0080	0.0089	W14
N3839TC350†	3500	3839	49500	12.25 x 10^6	0.950	0.140	125	0.0080	0.0089	W14
N3839TD300†	3000	3839	49500	12.25 x 10^6	0.950	0.140	125	0.0080	0.0089	W51
N3839TD350†	3500	3839	49500	12.25 x 10^6	0.950	0.140	125	0.0080	0.0089	W51
N3880ZD160	1600	3880	59000	17.4 x 10^6	0.986	0.068	125	0.1100	0.1190	W46
N3880ZD180	1800	3880	59000	17.4 x 10^6	0.986	0.068	125	0.1100	0.1190	W46
N3904HK200	2000	3904	50900	12.95 x 10^6	0.920	0.111	125	0.0090	0.0099	WP4
N3904HK220	2200	3904	50900	12.95 x 10^6	0.920	0.111	125	0.0090	0.0099	WP4
N3930ZC120	1200	3930	54000	14.6 x 10^6	0.841	0.080	125	0.0110	0.0119	W13
N3930ZC160	1600	3930	54000	14.6 x 10^6	0.841	0.080	125	0.0110	0.0119	W13
N3930ZD120	1200	3930	54000	14.6 x 10^6	0.841	0.080	125	0.0110	0.0119	W46
N3930ZD160	1600	3930	54000	14.6 x 10^6	0.841	0.080	125	0.0110	0.0119	W46
N4085ZC080	800	4085	64000	20.5 x 10^6	0.850	0.070	125	0.0110	0.0119	W13
N4085ZC120	1200	4085	64000	20.5 x 10^6	0.850	0.070	125	0.0110	0.0119	W13
N4085ZD080	800	4085	64000	20.5 x 10^6	0.850	0.070	125	0.0110	0.0119	W46
N4085ZD120	1200	4085	64000	20.5 x 10^6	0.850	0.070	125	0.0110	0.0119	W46
N4151FC360	3600	4151	54000	14.6 x 10^6	0.850	0.170	125	0.0065	0.0069	W15
N4151FC420	4200	4151	54000	14.6 x 10^6	0.850	0.170	125	0.0065	0.0069	W15
N4151FD360	3600	4151	54000	14.6 x 10^6	0.850	0.170	125	0.0065	0.0069	W48
N4151FD420	4200	4151	54000	14.6 x 10^6	0.850	0.170	125	0.0065	0.0069	W48
N4316MK020	200	4316	45400	10.3 x 10^6	0.840	0.053	140	0.0140	0.0157	WP3
N4316MK040	400	4316	45400	10.3 x 10^6	0.840	0.053	140	0.0140	0.0157	WP3
N4316MK060	600	4316	45400	10.3 x 10^6	0.840	0.053	140	0.0140	0.0157	WP3
N4340TE120 #	1200	4340	55000	15.1 x 10^6	0.886	0.105	125	0.0080	0.0085	W82
N4340TE150 #	1500	4340	55000	15.1 x 10^6	0.886	0.105	125	0.0080	0.0085	W82
N4340TJ120 #	1200	4340	55000	15.1 x 10^6	0.886	0.105	125	0.0080	0.0085	W81
N4340TJ150 #	1500	4340	55000	15.1 x 10^6	0.886	0.105	125	0.0080	0.0085	W81
N4472HK160	1600	4472	59000	17.4 x 10^6	0.986	0.068	125	0.0090	0.0099	WP4
N4472HK180	1800	4472	59000	17.4 x 10^6	0.986	0.068	125	0.0090	0.0099	WP4
N4803FC300	3000	4803	60000	18.0 x 10^6	0.920	0.110	125	0.0065	0.0069	W15
N4803FC350	3500	4803	60000	18.0 x 10^6	0.920	0.110	125	0.0065	0.0069	W15
N4803FD300	3000	4803	60000	18.0 x 10^6	0.920	0.110	125	0.0065	0.0069	W48
N4803FD350	3500	4803	60000	18.0 x 10^6	0.920	0.110	125	0.0065	0.0069	W48
N5177FC200	2000	5177	67500	22.8 x 10^6	0.800	0.100	125	0.0065	0.0069	W15
N5177FC280	2800	5177	67500	22.8 x 10^6	0.800	0.100	125	0.0065	0.0069	W15
N5177FD200	2000	5177	67500	22.8 x 10^6	0.800	0.100	125	0.0065	0.0069	W48
N5177FD280	2800	5177	67500	22.8 x 10^6	0.800	0.100	125	0.0065	0.0069	W48
N5946FC180	1800	5946	72000	25.9 x 10^6	0.855	0.065	125	0.0065	0.0069	W15
N5946FC220	2200	5946	72000	25.9 x 10^6	0.855	0.065	125	0.0065	0.0069	W15
N5946FD180	1800	5946	72000	25.9 x 10^6	0.855	0.065	125	0.0065	0.0069	W48
N5946FD220	2200	5946	72000	25.9 x 10^6	0.855	0.065	125	0.0065	0.0069	W48
N6012ZD020	200	6012	65000	21.13 x 10^6	0.853	0.029	140	0.0110	0.0119	W46
N6012ZD040	400	6012	65000	21.13 x 10^6	0.853	0.029	140	0.0110	0.0119	W46
N6012ZD060	600	6012	65000	21.13 x 10^6	0.853	0.029	140	0.0110	0.0119	W46
N6974HK020	200	6974	65000	21.13 x 10^6	0.853	0.029	140	0.0090	0.0099	WP4
N6974HK040	400	6974	65000	21.13 x 10^6	0.853	0.029	140	0.0090	0.0099	WP4
N6974HK060	600	6974	65000	21.13 x 10^6	0.853	0.029	140	0.0090	0.0099	WP4

Outlines

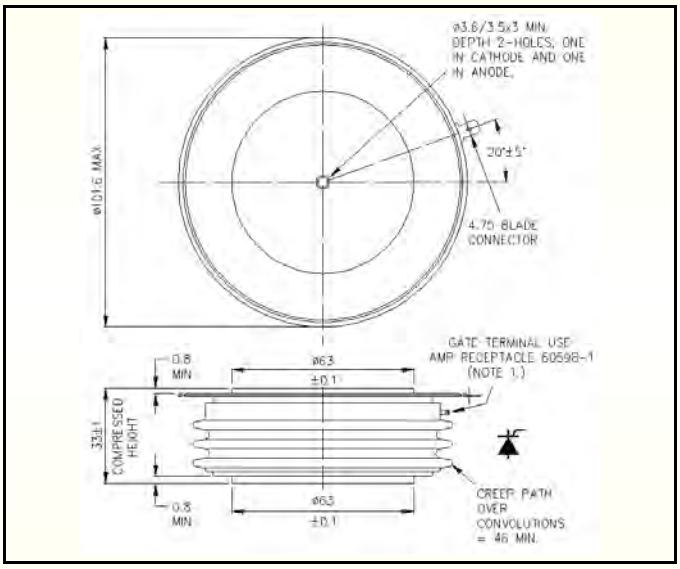
W10 – 101A216



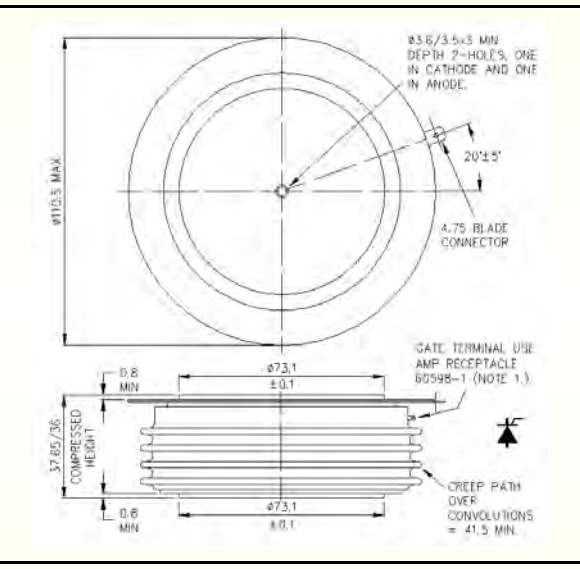
W11 – 101A223



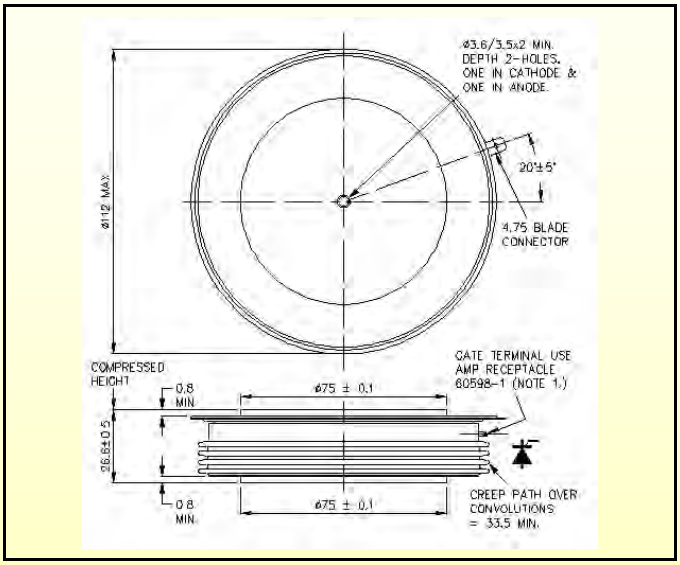
W12 – 101A232



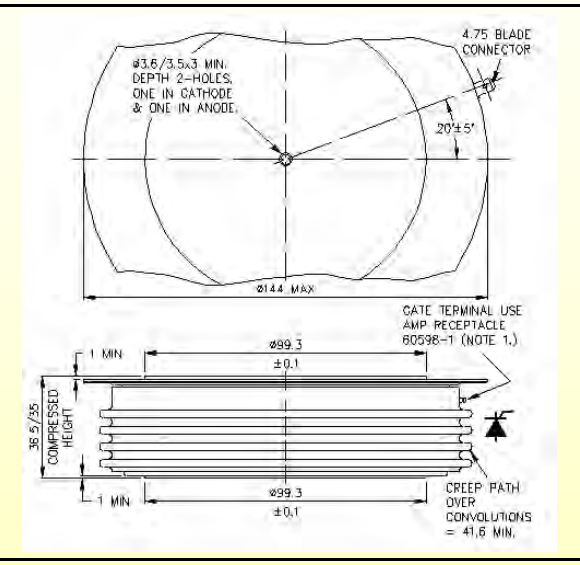
W13 – 101A281



W14 – 101A325

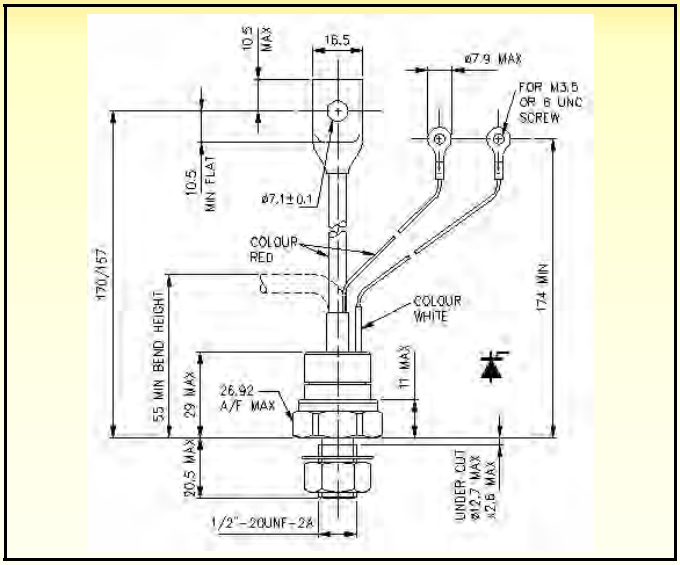


W15 – 101A322

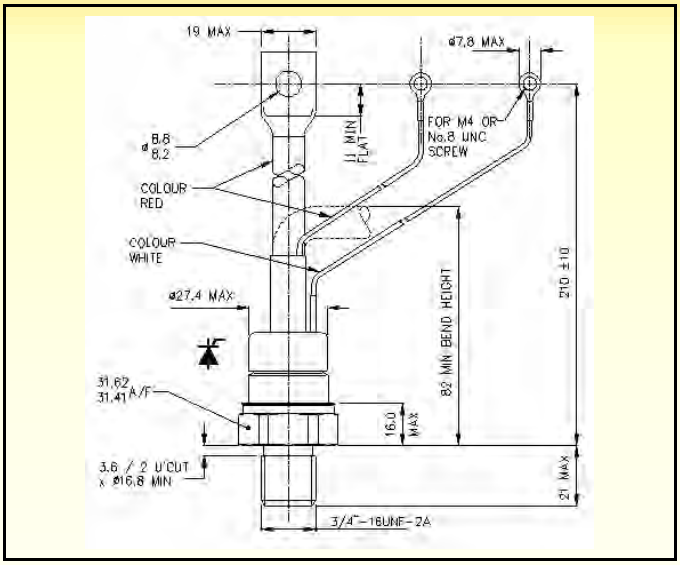


Outlines

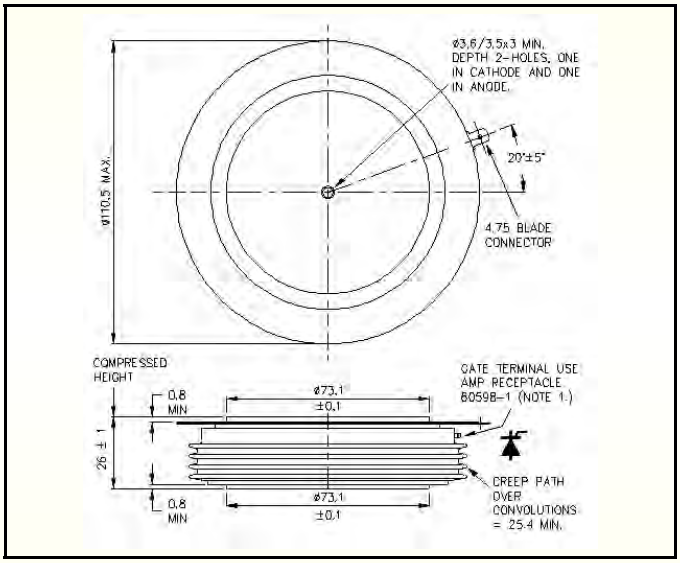
W17 – 101A231



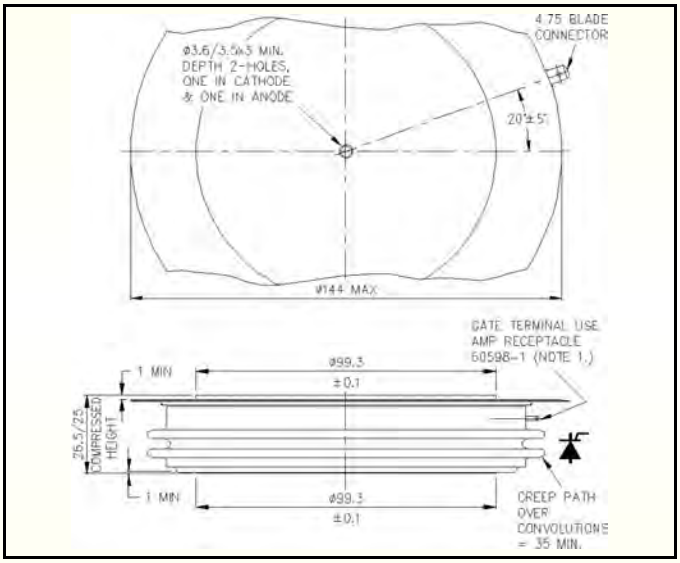
W18 – 101A225



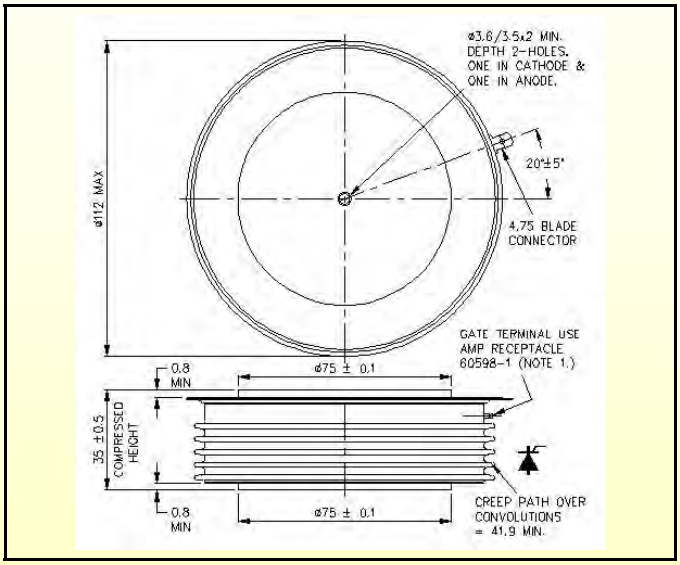
W46 – 101A305



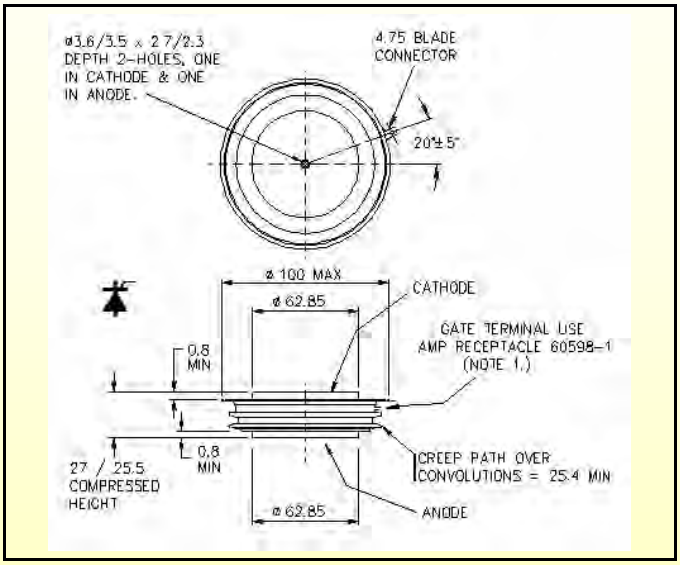
W48 – 101A347



W51 – 101A334

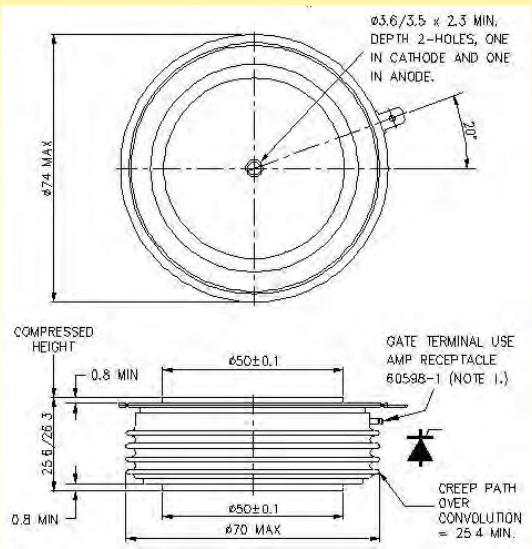


W62 – 101A314

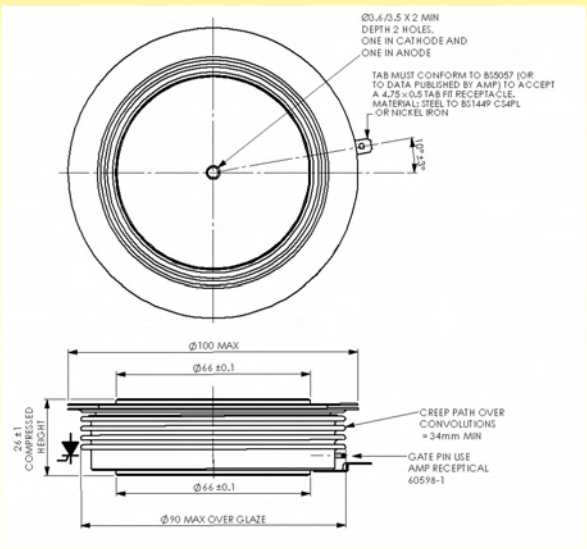


Outlines

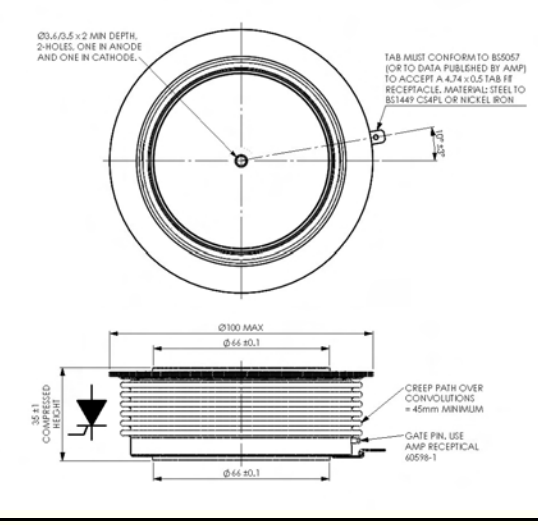
W70 – 101A357



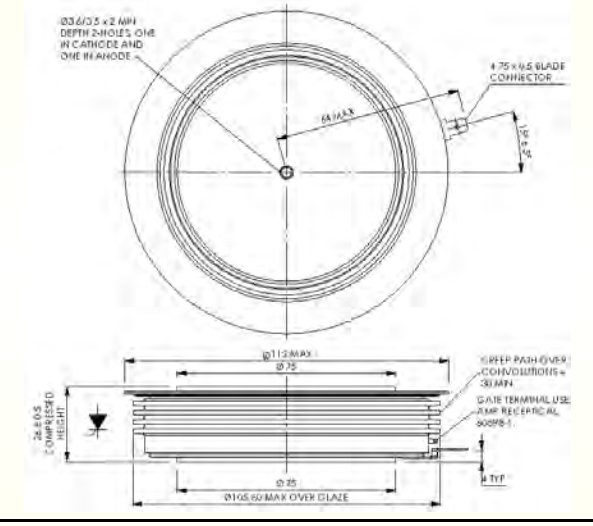
W79 – 101A396



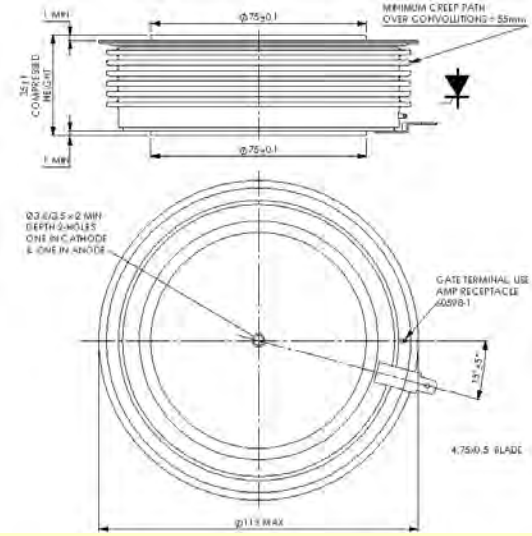
W80 – 101A397



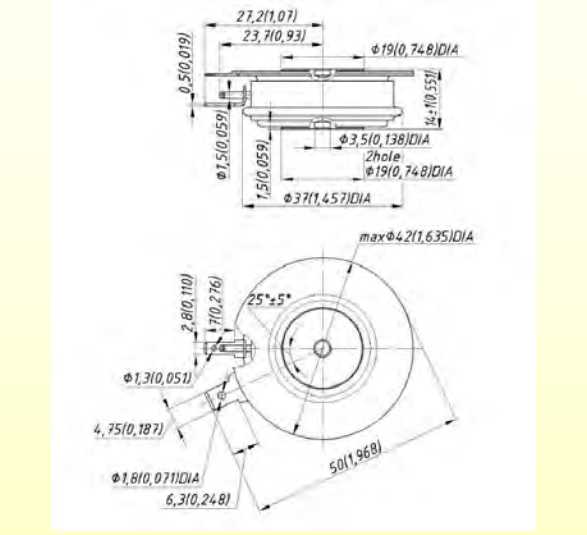
W81 – 101A373



W82 – 101A395

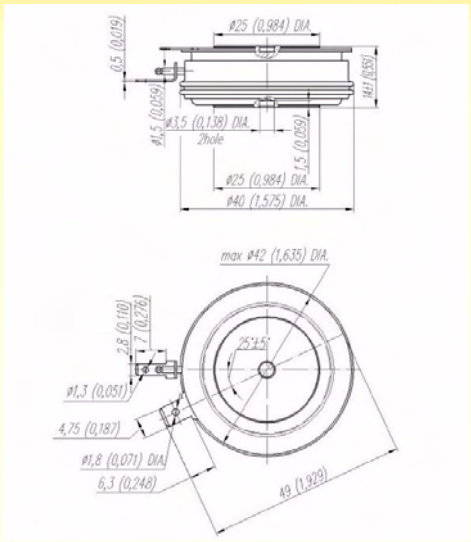


W90 – 101A405

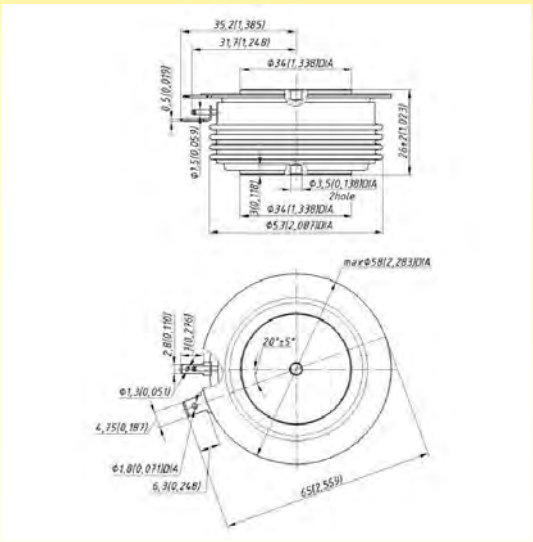


Outlines

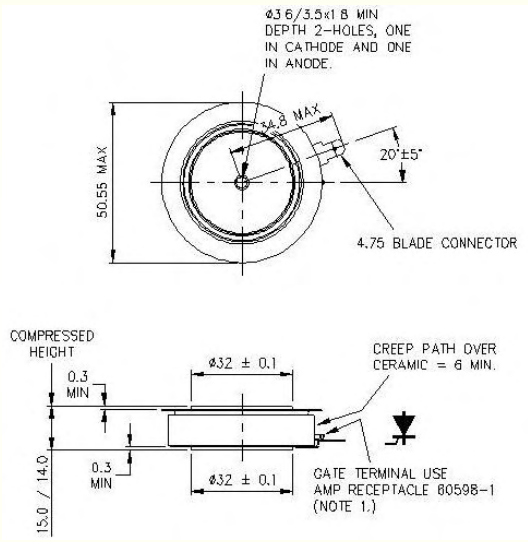
W91 – 101A406



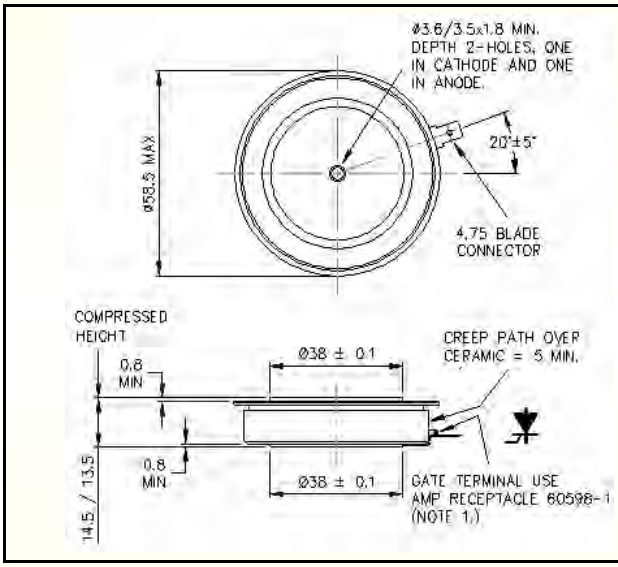
W92 – 101A407



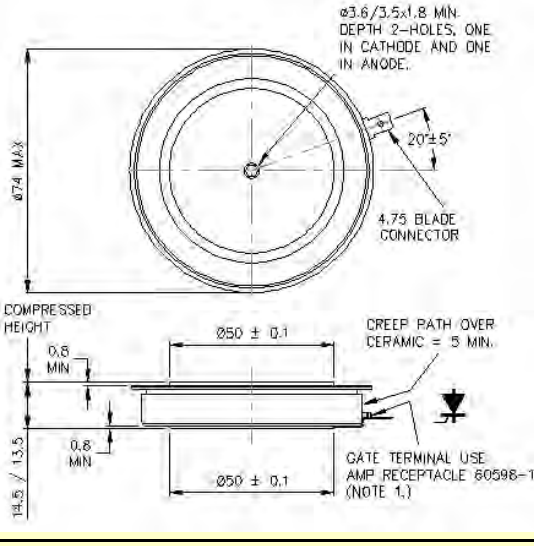
WP1 – 101A361



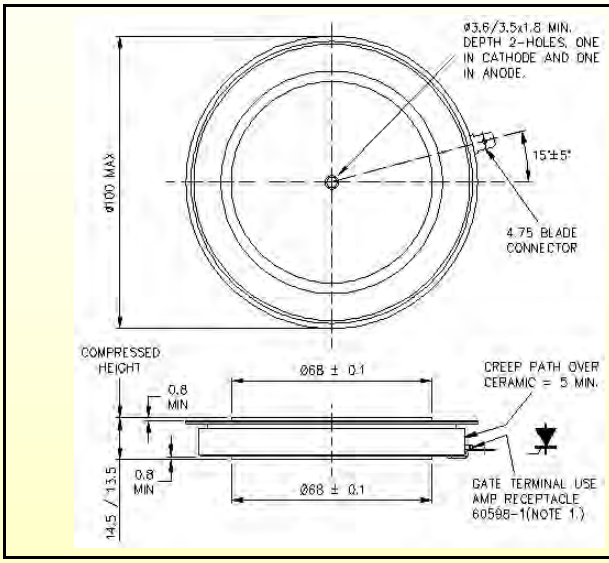
WP2 – 101A354



WP3 – 101A353

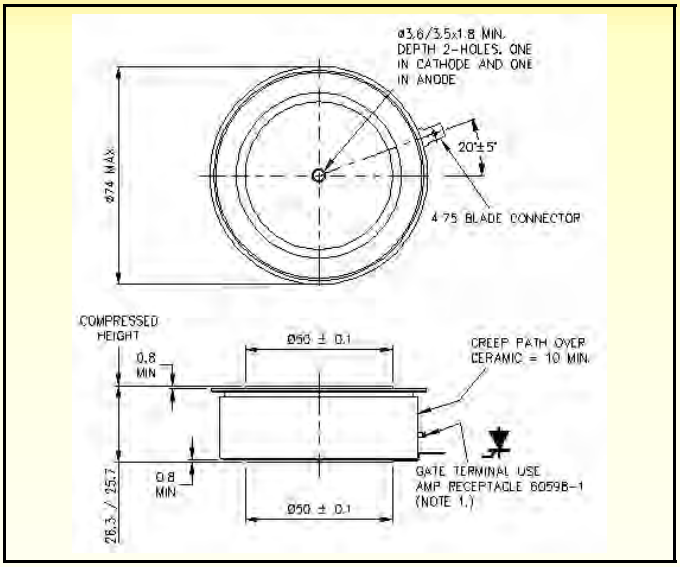


WP4 – 101A355

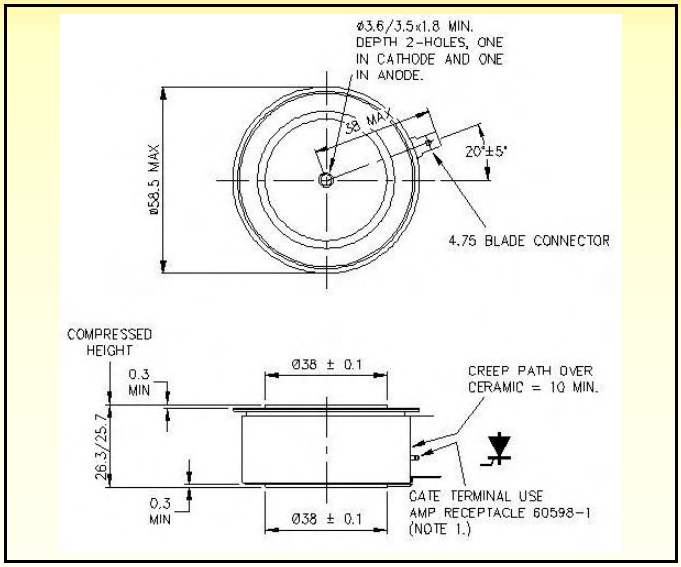


Outlines

WP5 – 101A356



WP6 – 101A389

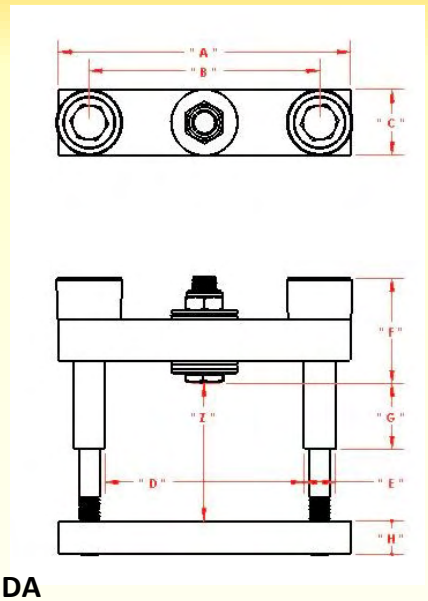


Recommended clamps for Phase control thyristors

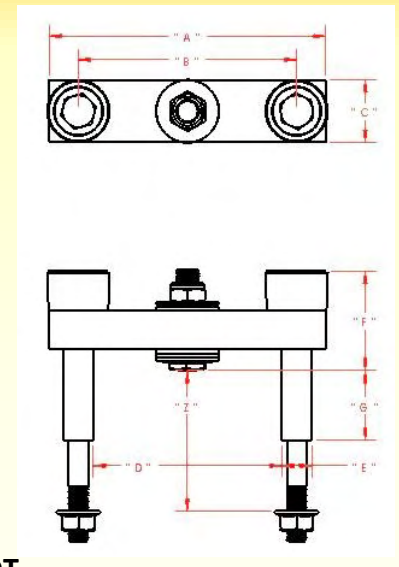
IXYS UK offers a diverse range of clamping option for its semiconductors. The clamps listed below are selected as ideal choices to complement each phase control thyristor based on its outline dimemsions and recommended clamped pressure range

Housing code	Drawing number	Electrode diameter (mm)	Max. capsule height (mm)	Recommended clamp	Figure
WC	W8	19	14.4	XSK0500D#042Mxxx	A
WN	W90	19	15	XK0550D/SA056M	B
YN	W91	25	15	XK1000D/SA074M	C
LC	W10	34	27	XSK1500D#065Mxxx	A
LN	W92	34	27	XSK1500D#065Mxxx	A
NC	W11	47	27.7	XSK2200D#075Mxxx	A
NG	W57	47	35.5	XSK2200D#075Mxxx	A
MC	W70	50	26.3	XSK3000D#087Mxxx	A
JK	WP1	32	15	XSK1500DA076xxx	D
HA	W79	66	26	XSK3800DA116Mxxx	E
HE	W80	66	35	XSK3800DA116Mxxx	E
VC	W12	63	34	XSK3200D#103xxx	A
VF	W62	62.85	27	XSK3200D#103xxx	A
QL	WP6	38	26.3	XK1800D/Sx076M	F
QK	WP2	38	14.5	XK1800D/Sx076M	F
ML	WP5	50	26.3	XK2700D/Sx076M	G
ZC	W13	73.1	37.65	XSK3800DA112Mxxx	E
ZD	W46	73.1	27	XSK3800DA112Mxxx	E
MK	WP3	50	14.5	XK2700D/Sx076M	G
TE	W82	75	36	XK7000DA128ML	H
TJ	W81	75	26.6	XK7000DA128ML	H
TC	W14	75	27.1	XK7000DA128ML	H
TD	W51	75	35.5	XK7000DA128ML	H
HK	WP4	68	14.5	XK4000SA116ML	J
EA	W107	85	26	XK9000D/SA160M	K
EE	W108	85	35	XK9000D/SA160M	K
FC	W15	99.3	36.5	XK9000D/SA160M	K

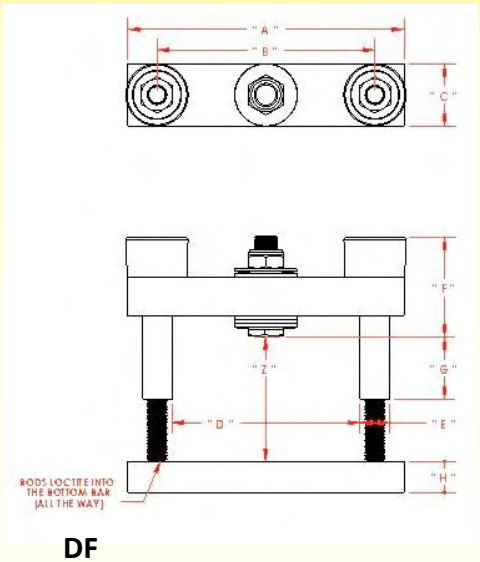
Figure A



DA



DT



DF

Part #'s	A	B	C	D	E	F	G	H	" Z " min	" Z " max	Bolt Type
XSK xxxxx xx 042 M 025	69.85	54.00	15.88	45.00	8.64	32.00	14.98	12.70	19.05	25.40	M6
XSK xxxxx xx 042 M 031	69.85	54.00	15.88	45.00	8.64	32.00	14.98	12.70	25.40	31.75	M6
XSK xxxxx xx 042 M 038	69.85	54.00	15.88	45.00	8.64	32.00	19.81	12.70	31.75	38.10	M6
XSK xxxxx xx 042 M 044	69.85	54.00	15.88	45.00	8.64	32.00	21.84	12.70	38.10	44.45	M6
XSK xxxxx xx 042 M 050	69.85	54.00	15.88	45.00	8.64	32.00	24.89	12.70	44.45	50.80	M6
XSK xxxxx xx 042 M 057	69.85	54.00	15.88	45.00	8.64	32.00	29.97	12.70	50.80	57.15	M6
XSK xxxxx xx 042 M 063	69.85	54.00	15.88	45.00	8.64	32.00	32.00	12.70	57.15	63.50	M6
XSK xxxxx xx 042 M 069	69.85	54.00	15.88	45.00	8.64	32.00	34.79	12.70	63.50	69.85	M6
XSK xxxxx xx 042 M 076	69.85	54.00	15.88	45.00	8.64	32.00	39.87	12.70	69.85	76.20	M6

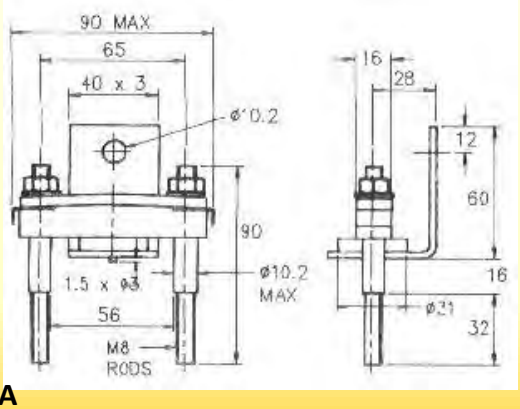
Part #'s	A	B	C	D	E	F	G	H	" Z " min	" Z " max	Bolt Type
XSK xxxxx xx 065 M 038	104.39	79.00	25.40	65.00	12.19	48.48	25.65	12.70	31.75	38.10	M8
XSK xxxxx xx 065 M 044	104.39	79.00	25.40	65.00	12.19	48.48	28.70	12.70	38.10	44.45	M8
XSK xxxxx xx 065 M 057	104.39	79.00	25.40	65.00	12.19	48.48	35.81	12.70	50.80	57.15	M8
XSK xxxxx xx 065 M 063	104.39	79.00	25.40	65.00	12.19	48.48	38.60	12.70	57.15	63.50	M8
XSK xxxxx xx 065 M 076	104.39	79.00	25.40	65.00	12.19	48.48	43.68	12.70	69.85	76.20	M8
XSK xxxxx xx 065 M 082	104.39	79.00	25.40	65.00	12.19	48.48	46.73	12.70	76.20	82.55	M8
XSK xxxxx xx 065 M 088	104.39	79.00	25.40	65.00	12.19	48.48	49.78	12.70	82.55	88.90	M8
XSK xxxxx xx 065 M 095	104.39	79.00	25.40	65.00	12.19	48.48	52.57	12.70	88.90	95.25	M8
XSK xxxxx xx 065 M 101	104.39	79.00	25.40	65.00	12.19	48.48	55.62	12.70	95.25	101.60	M8
XSK xxxxx xx 065 M 107	104.39	79.00	25.40	65.00	12.19	48.48	58.67	12.70	101.60	107.95	M8
XSK xxxxx xx 065 M 114	104.39	79.00	25.40	65.00	12.19	48.48	61.72	12.70	107.95	114.30	M8
XSK xxxxx xx 065 M 120	104.39	79.00	25.40	65.00	12.19	48.48	64.77	12.70	114.30	120.65	M8

Part #'s	A	B	C	D	E	F	G	H	" Z " min	" Z " max	Bolt Type
XSK xxxxx xx 075 M 038	112.78	89.00	25.40	75.00	12.19	37.37	24.63	12.70	31.75	38.10	M8
XSK xxxxx xx 075 M 044	112.78	89.00	25.40	75.00	12.19	37.37	27.68	12.70	38.10	44.45	M8
XSK xxxxx xx 075 M 057	112.78	89.00	25.40	75.00	12.19	37.37	33.52	12.70	50.80	57.15	M8
XSK xxxxx xx 075 M 063	112.78	89.00	25.40	75.00	12.19	37.37	36.57	12.70	57.15	63.50	M8
XSK xxxxx xx 075 M 076	112.78	89.00	25.40	75.00	12.19	37.37	41.65	12.70	69.85	76.20	M8
XSK xxxxx xx 075 M 082	112.78	89.00	25.40	75.00	12.19	37.37	45.72	12.70	76.20	82.55	M8
XSK xxxxx xx 075 M 088	112.78	89.00	25.40	75.00	12.19	37.37	48.51	12.70	82.55	88.90	M8
XSK xxxxx xx 075 M 095	112.78	89.00	25.40	75.00	12.19	37.37	51.56	12.70	88.90	95.25	M8
XSK xxxxx xx 075 M 101	112.78	89.00	25.40	75.00	12.19	37.37	54.61	12.70	95.25	101.60	M8
XSK xxxxx xx 075 M 107	112.78	89.00	25.40	75.00	12.19	37.37	57.65	12.70	101.60	107.95	M8
XSK xxxxx xx 075 M 114	112.78	89.00	25.40	75.00	12.19	37.37	60.70	12.70	107.95	114.30	M8
XSK xxxxx xx 075 M 120	112.78	89.00	25.40	75.00	12.19	37.37	63.75	12.70	114.30	120.65	M8

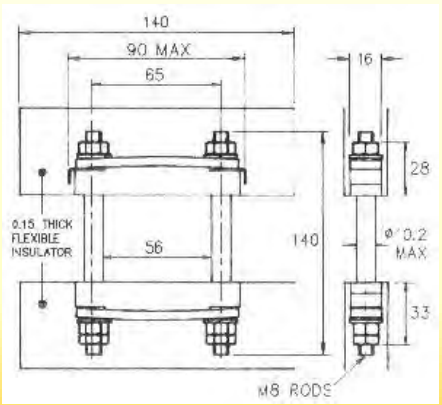
Part #'s	A	B	C	D	E	F	G	H	" Z " min	" Z " max	Bolt Type
XSK xxxxx xx 087 M 038	127.00	102.00	25.40	87.00	12.18	35.79	24.63	19.05	31.75	38.10	M8
XSK xxxxx xx 087 M 044	127.00	102.00	25.40	87.00	12.18	35.79	27.43	19.05	38.10	44.45	M8
XSK xxxxx xx 087 M 057	127.00	102.00	25.40	87.00	12.18	35.79	33.52	19.05	50.80	57.15	M8
XSK xxxxx xx 087 M 063	127.00	102.00	25.40	87.00	12.18	35.79	37.59	19.05	57.15	63.50	M8
XSK xxxxx xx 087 M 076	127.00	102.00	25.40	87.00	12.18	35.79	43.43	19.05	69.85	76.20	M8
XSK xxxxx xx 087 M 082	127.00	102.00	25.40	87.00	12.18	35.79	46.48	19.05	76.20	82.55	M8
XSK xxxxx xx 087 M 088	127.00	102.00	25.40	87.00	12.18	35.79	49.53	19.05	82.55	88.90	M8
XSK xxxxx xx 087 M 095	127.00	102.00	25.40	87.00	12.18	35.79	52.57	19.05	88.90	95.25	M8
XSK xxxxx xx 087 M 101	127.00	102.00	25.40	87.00	12.18	35.79	55.62	19.05	95.25	101.60	M8
XSK xxxxx xx 087 M 107	127.00	102.00	25.40	87.00	12.18	35.79	58.42	19.05	101.60	107.95	M8
XSK xxxxx xx 087 M 114	127.00	102.00	25.40	87.00	12.18	35.79	61.46	19.05	107.95	114.30	M8
XSK xxxxx xx 087 M 120	127.00	102.00	25.40	87.00	12.18	35.79	64.51	19.05	114.30	120.65	M8

Part #'s	A	B	C	D	E	F	G	H	" Z " min	" Z " max	Bolt Type
XSK xxxxx xx 103 M 038	144.78	118.00	25.40	105.00	12.19	48.48	28.44	19.05	31.75	38.10	M8
XSK xxxxx xx 103 M 044	144.78	118.00	25.40	105.00	12.19	48.48	30.48	19.05	38.10	44.45	M8
XSK xxxxx xx 103 M 057	144.78	118.00	25.40	105.00	12.19	48.48	37.59	19.05	50.80	57.15	M8
XSK xxxxx xx 103 M 063	144.78	118.00	25.40	105.00	12.19	48.48	40.64	19.05	57.15	63.50	M8
XSK xxxxx xx 103 M 076	144.78	118.00	25.40	105.00	12.19	48.48	46.48	19.05	69.85	76.20	M8
XSK xxxxx xx 103 M 082	144.78	118.00	25.40	105.00	12.19	48.48	49.53	19.05	76.20	82.55	M8
XSK xxxxx xx 103 M 088	144.78	118.00	25.40	105.00	12.19	48.48	52.57	19.05	82.55	88.90	M8
XSK xxxxx xx 103 M 095	144.78	118.00	25.40	105.00	12.19	48.48	55.62	19.05	88.90	95.25	M8
XSK xxxxx xx 103 M 101	144.78	118.00	25.40	105.00	12.19	48.48	58.42	19.05	95.25	101.60	M8
XSK xxxxx xx 103 M 107	144.78	118.00	25.40	105.00	12.19	48.48	61.46	19.05	101.60	107.95	M8
XSK xxxxx xx 103 M 114	144.78	118.00	25.40	105.00	12.19	48.48	64.51	19.05	107.95	114.30	M8
XSK xxxxx xx 103 M 120	144.78	118.00	25.40	105.00	12.19	48.48	67.56	19.05	114.30	120.65	M8

Figure B

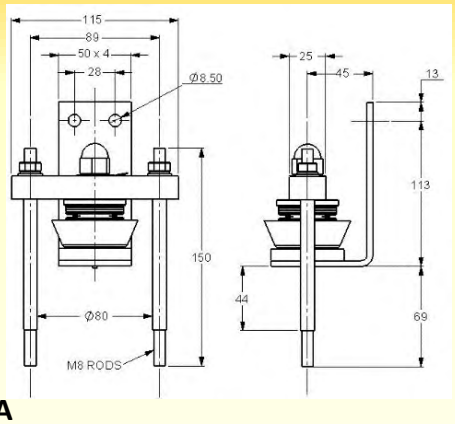


SA



DA

Figure C



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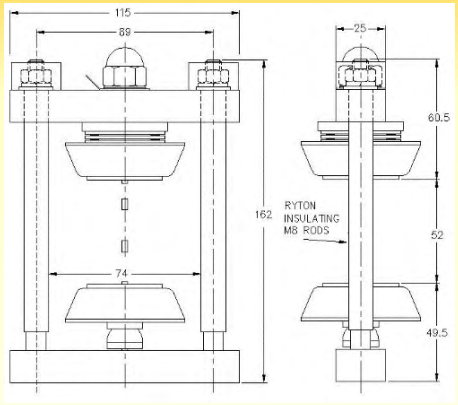
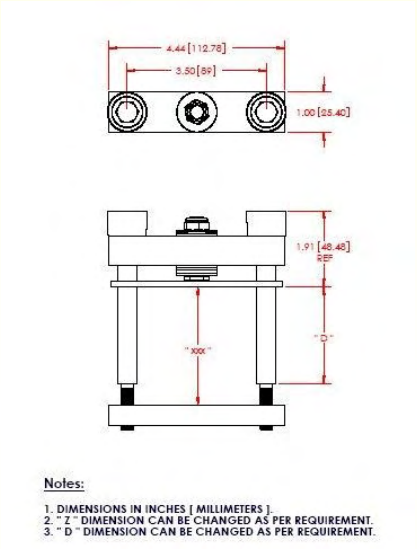


DA

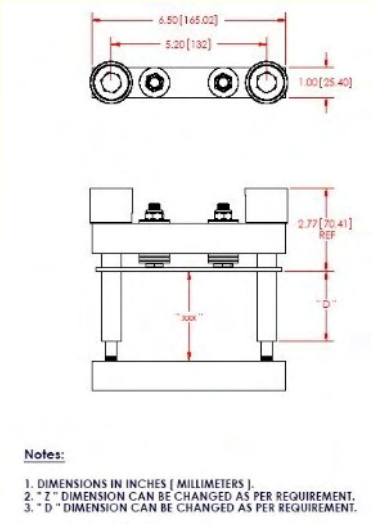
Figure D



Notes:

1. DIMENSIONS IN INCHES [MILLIMETERS].
2. " Z " DIMENSION CAN BE CHANGED AS PER REQUIREMENT.
3. " D " DIMENSION CAN BE CHANGED AS PER REQUIREMENT.

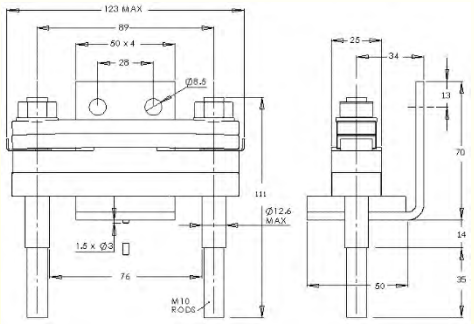
Figure E



Notes:

1. DIMENSIONS IN INCHES [MILLIMETERS].
2. " Z " DIMENSION CAN BE CHANGED AS PER REQUIREMENT.
3. " D " DIMENSION CAN BE CHANGED AS PER REQUIREMENT.

Figure F



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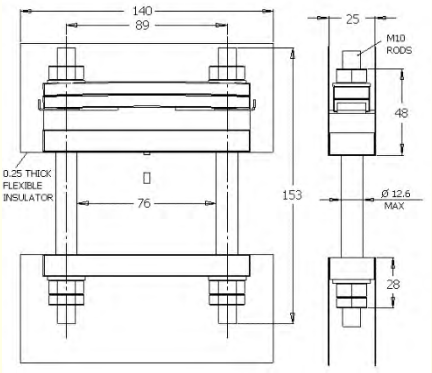

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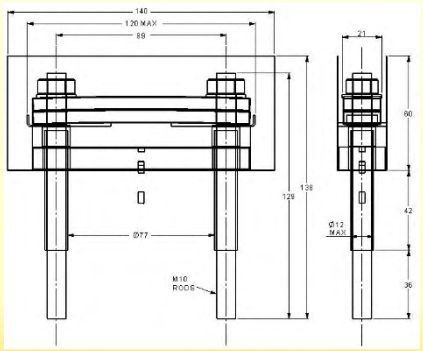
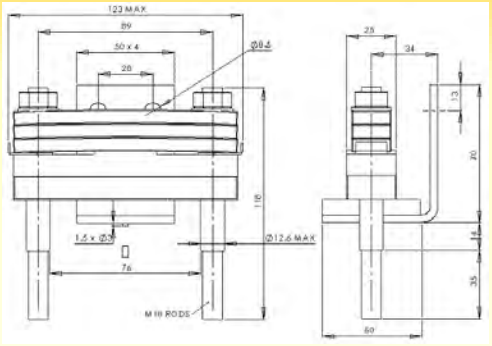


DT

Figure G



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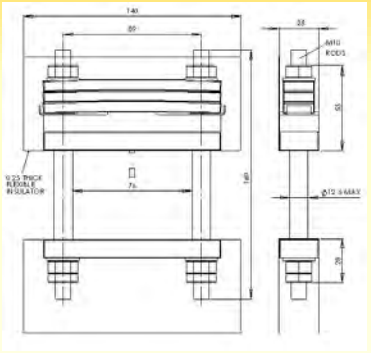
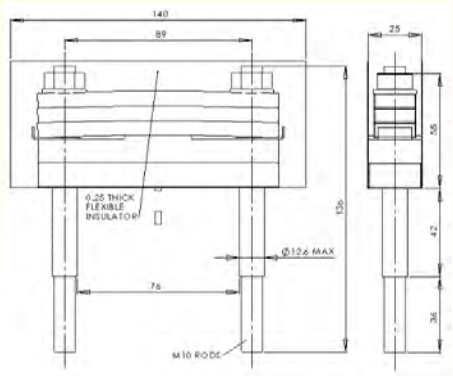


DA



DT

Figure H

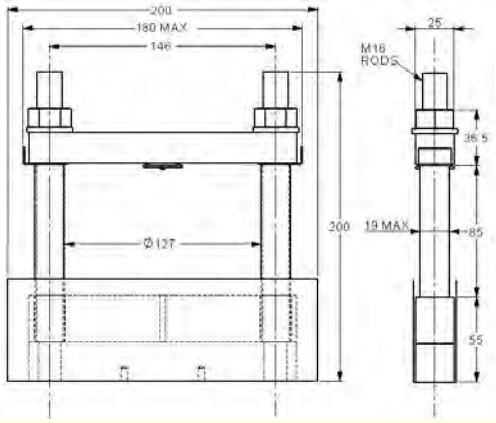


Figure J

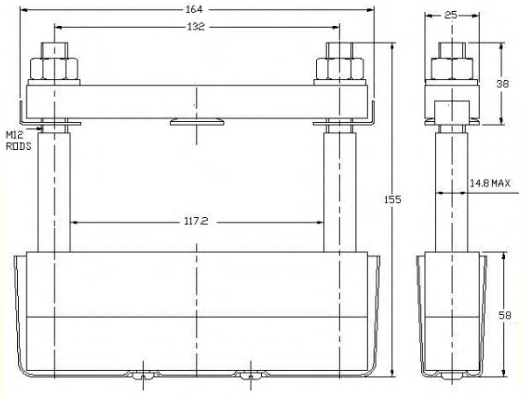
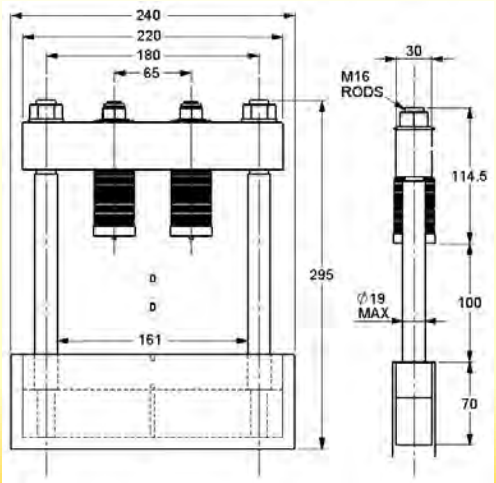


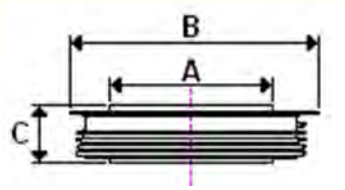
Figure K



Other accessories and lead sets

Part No.	Accessory
XSGSCX13	Press Pack Semiconductor Mounting Grease (1kg tub)
XST1000M08P	M8 PTFE tube x 1m length insulation
XST1000M10P	M10 PTFE tube x 1m length insulation
XST1000M12P	M12 PTFE tube x 1m length insulation
XST1000M16P	M16 PTFE tube x 1m length insulation

Insulator capsules		Dimension		
		A	B	C
		mm	mm	mm
L0001YC450XXX	30mm diameter poleface Insulator Capsule	30	42	15.1
L0001QC450XXX	43mm diameter poleface Insulator Capsule	38	58.5	14.5
L0001MC450XXX	56mm diameter poleface Insulator Capsule	47	74	27.7
L0001HC450XXX	68mm diameter poleface Insulator Capsule	68	100	14.5
L0001TC450XXX	87mm diameter poleface Insulator Capsule	73.1	110.5	35
L0001FC450XXX	100mm diameter poleface Insulator Capsule	75	112	26.6



Part No.	Lead dimension and termination	Device type
XSL220C2WRT	220mm long twisted pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL300C2WRP	300mm long pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL300C2WS	300mm long gate wire, Silicone sleeve cable 16/0.2, White, M4 ring terminal	Thyristor
XSL350C2WRP	350mm long pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL400C2WRP	400mm long pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL500C2WRP	500mm long pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL600C2WRP	600mm long pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL1000C2WRP	1000mm long pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL1000C2WRT	1000mm long twisted pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor
XSL1100C2WRT	1100mm long twisted pair, Silicone sleeve cable 16/0.2, Red / White, M4 ring terminal	Thyristor

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