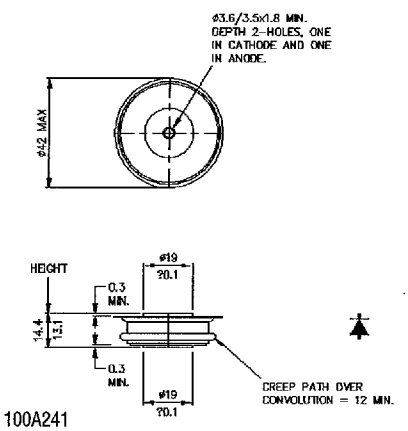
Rectifier Diodes ~ Capsule types

Type	V_{RRM} Range (Note 5) (V)	$I_{F(AV)}$ T_{hs} 55°C (A)	$I_{F(RMS)}$ @25°C (A)	I_F @25°C (A)	$I_{FSM(1)}$ 10ms $V_R \leq 60\%$ V_{RRM} (Note 2) (A)	$I_{FSM(2)}$ 10ms $V_R \leq 10V$ (Note 2) (A)	$I^2t_{(2)}$ 10ms (Note 2) (A^2s)	I_{RRM} (mA)
SWxCXC300	200-1500	650	1170	1000	5500	6050	183×10^3	15
SWxCXC320	1600-2400	615	1100	960	4000	4400	97×10^3	15
SWxCXC380	1600-2400	640	1160	1000	5500	6050	183×10^3	15
SWxCXC400	200-1500	800	1420	1240	7500	8250	340×10^3	15
SWxCXC470	200-1500	945	1694	1430	9000	10000	500×10^3	15
SWxCXC445	2000-3000	1075	1985	1700	10800	11800	696×10^3	30
SWxCXC565	200-2000	1260	2290	1972	11700	13000	845×10^3	30
SWxCXC350	3000-5600	1030	1910	1720	7200	7920	314×10^3	30
SWxCXC515	3800-4400	1186	2171	1936	9200	10600	559×10^3	30
SWxCXC595	3000-3600	1415	2590	2288	10600	12200	744×10^3	30
SWxCXC635	2400-3000	1525	2800	2460	12700	14600	1.07×10^6	30
SWxCXC805	200-2200	1750	3160	2760	15400	17700	1.56×10^6	30
SWxCXC935	200-1200	2060	3730	3230	19500	22400	2.50×10^6	30
SWxCXC500	4600-5800	1295	2400	2160	10000	11000	605×10^3	70
SWxCXC620	4600-5800	1520	2830	2500	12000	19000	1.80×10^6	70
SWxCXC680	3600-4500	1610	2930	2660	13000	14300	1.02×10^6	50
SWxCXC815	3600-4500	1860	3400	3025	16000	21000	2.20×10^6	50
SWxCXC820	2600-3600	2050	3755	3350	19500	21450	2.30×10^6	50
SWxCXC930	2600-3600	2130	3900	3460	20000	24000	2.88×10^6	50
SWxCXC950	1600-2500	2420	4430	3920	25500	28050	3.92×10^6	50
SWxCXC11C	1600-2500	2630	4830	4220	28000	30800	4.74×10^6	50
SWxCXC14C	200-2000	3270	5920	5140	33000	37000	6.85×10^6	50
SWxCXC19C	200-600	4540	8190	6715	40000	44000	9.68×10^6	50
SWxCXC818	2800-4500	1930	3500	3260	18000	20000	2.00×10^6	50
SWxCXC1170	3000-4000	2665	4900	4295	26500	29200	4.26×10^6	100
SWxCXC12C	2400-3200	2960	5340	4710	28000	31000	4.81×10^6	60
SWxCXC1100	3600-4500	2824	5265	4350	26200	28800	3.98×10^6	60
SWxCXC13C	2600-4000	3100	5600	4900	30000	33000	5.45×10^6	60
SWxCXC16C	200-2000	3700	6840	5840	40000	45000	10.1×10^6	60
SWxCXC17C	2400-3400	3200	5850	5230	31300	34400	5.9×10^6	100
SWxCXC22C	200-1400	5440	9700	8470	52000	57000	16.2×10^6	60
SWxCXC27C	200-1400	5700	10160	8810	53000	59000	17.4×10^6	60
SWxCXC15C	2800-4800	3750	6870	6100	35000	39000	7.62×10^6	200
SWxCXC18C	2400-3400	5100	9415	8095	58000	63800	20.4×10^6	150
SWxCXC1870	3400-4400	4100	7460	6800	41700	46400	10.8×10^6	200
SWxCXC20C	2000-3000	4310	7875	7060	55000	60500	18.3×10^6	100
SWxCXC21C	2000-3000	5300	9830	8200	60000	67000	22.4×10^6	100
SWxCXC26C	1200-2200	5843	10560	9206	64000	70000	24.5×10^6	100
SWxCXC2850	1200-2200	6286	11327	9885	67000	73000	22.4×10^6	100
SWxCXC30C	200-1400	7680	13670	12000	68000	75000	28.1×10^6	100
SWxCXC32C	200-1400	8400	15025	12920	72000	79200	31.4×10^6	100

V_0 @ Tj Max. (Note 1) (V)	r @ Tj Max. (Note 1) (mΩ)	V_{FM} at I_{FM} @ Tj Max. (V)	(A)	Tj Max. (°C)	Rth j-hs d.c. 180° sine (K/W)	120° Rect. (K/W)	Wt (gm)	Mounting Force (Kgf)	Fig. No.	Type
0.95	0.75	2.40	1930	180	0.090	0.095	70	330-550	1	**CXC300**
0.95	0.83	2.25	1500	180	0.090	0.095	70	330-550	1	**CXC320**
0.99	0.74	2.10	1500	180	0.090	0.095	70	330-550	1	**CXC380**
0.80	0.55	1.86	1930	190	0.090	0.095	70	330-550	1	**CXC400**
0.79	0.342	1.45	1930	190	0.090	0.095	70	330-550	1	**CXC470**
0.92	0.39	2.13	3090	160	0.050	0.058	80	530-1000	2	**CXC445**
0.87	0.33	2.12	3770	175	0.050	0.058	80	530-1000	2	**CXC 565**
1.00	0.702	2.70	2420	150	0.033	0.040	340	1000-2000	3	**CXC350**
1.00	0.575	2.40	2420	160	0.033	0.040	340	1000-2000	3	**CXC515**
0.90	0.388	2.00	2870	160	0.033	0.040	340	1000-2000	3	**CXC595**
0.87	0.323	1.87	3090	160	0.033	0.040	340	1000-2000	3	**CXC635**
0.87	0.28	1.93	3770	175	0.033	0.040	340	1000-2000	3	**CXC805**
0.79	0.192	1.63	4400	175	0.033	0.040	340	1000-2000	3	**CXC935**
1.15	0.684	2.75	2340	150	0.022	0.028	510	1900-2600	4	**CXC500**
1.15	0.45	2.20	2340	150	0.022	0.028	510	1900-2600	4	**CXC620**
0.975	0.501	2.48	3000	160	0.022	0.028	510	1900-2600	4	**CXC680**
0.975	0.348	2.02	3000	160	0.022	0.028	510	1900-2600	4	**CXC815**
0.865	0.288	1.96	3800	160	0.022	0.028	510	1900-2600	4	**CXC820**
0.865	0.26	1.86	3800	160	0.022	0.028	510	1900-2600	4	**CXC930**
0.78	0.20	1.68	4500	160	0.022	0.028	510	1900-2600	4	**CXC950**
0.78	0.16	1.50	4500	160	0.022	0.028	510	1900-2600	4	**CXC11C**
0.73	0.116	1.47	6400	175	0.022	0.028	510	1900-2600	4	**CXC14C**
0.765	0.0524	1.10	6400	190	0.022	0.028	510	1900-2600	4	**CXC19C**
0.661	0.432	1.96	3000	160	0.020	0.025	510	1900-2600	4	**CXC818**
0.824	0.174	1.45	3600	175	0.020	0.025	510	1900-2600	4	**CXC1170**
0.807	0.167	1.44	3800	175	0.020	0.025	510	1900-2600	4	**CXC12C**
1.30	0.147	2.30	6800	160	0.016	0.020	1000	2700-3400	5	**CXC1100**
0.875	0.158	1.95	6800	160	0.016	0.020	1000	2700-3400	5	**CXC13C**
0.86	0.10	1.54	6800	160	0.016	0.020	1000	2700-3400	5	**CXC16C**
0.75	0.165	1.87	6800	160	0.016	0.020	1000	2700-3400	5	**CXC17C**
0.65	0.067	1.11	6800	190	0.016	0.020	1000	2700-3400	5	**CXC22C**
0.65	0.059	1.05	6800	190	0.016	0.020	1000	2700-3400	5	**CXC27C**
0.976	0.17	2.00	6000	160	0.011	0.014	1700	2700-4700	6	**CXC15C**
0.874	0.079	1.35	6000	160	0.011	0.014	1700	2700-4700	6	**CXC18C**
0.73	0.158	1.68	6000	160	0.011	0.014	1700	2700-4700	6	**CXC1870**
0.80	0.133	1.60	6000	160	0.011	0.014	1700	2700-4700	6	**CXC20C**
0.97	0.064	1.35	6000	160	0.011	0.014	1700	2700-4700	6	**CXC21C**
0.80	0.074	1.30	6800	175	0.011	0.014	1700	2700-4700	6	**CXC26C**
0.74	0.0647	1.18	6800	175	0.011	0.014	1700	2700-4700	6	**CXC2850**
0.65	0.05	0.99	6800	190	0.011	0.014	1700	2700-4700	6	**CXC30C**
0.67	0.038	0.90	6800	190	0.011	0.014	1700	2700-4700	6	**CXC32C**

Rectifier Diodes ~ Outlines

1



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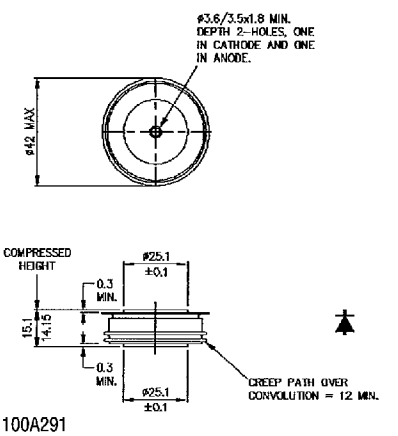

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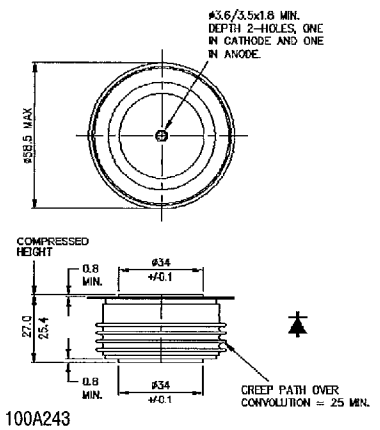

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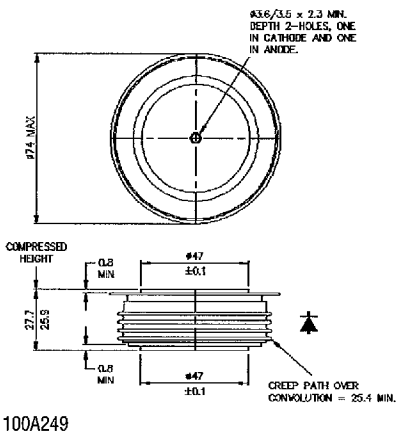

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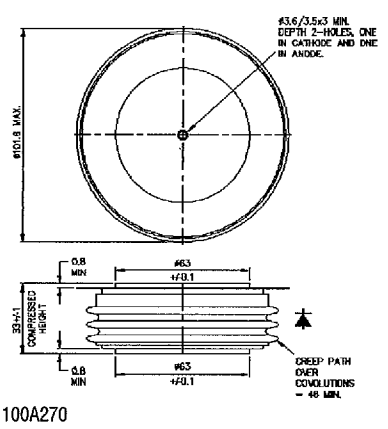

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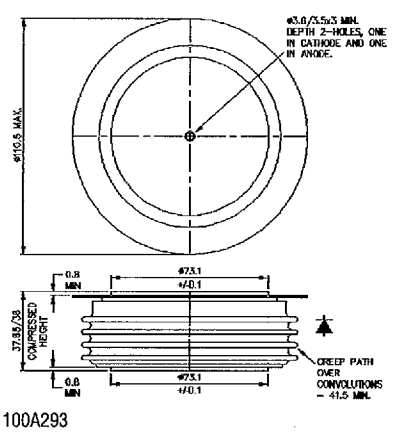

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Ordering

Stud and flat-base diodes are available in both Normal (base cathode) and Reverse (base anode) polarity. Use N or R respectively in code according to polarity required, e.g. NO12 – normal polarity, RO12 – reverse polarity.

Examples

SW08PCN012: 800 volt normal polarity type 012 stud base diode
SW12CXC300: 1200 volt type 300 capsule diode

Notes

(1) V_o Threshold Voltage } for conduction loss and heatsink calculations at Tj Max.
r Slope resistance }

(2) I_{FSM} (8.3ms) = I_{FSM} (10ms) x 1.066
I^2t (8.3ms) = I^2t (10ms) x 0.943
at Tj Max

(3) Capsule outlines available with the following
compressed heights:
Outline 5 23.5 / 24.5 (0.93 / 0.96)
Outline 6 25.6 / 26.9 (1.00 / 1.06)
Ordering code SWxxDXCxxx
e.g. SW10DXC32C

(4) Outline 2 - Leaded types, code changes from PCN/R to PHN/R. Lead length 135mm. (base of hexagon to centre of lug hole)

(5) A blocking voltage derating factor of 0.13% per deg. Celsius is applicable for Tj below 25 deg. C.

Table 1. Voltage Code

Voltage Code Number	V_{RRM}	V_{RSM}
02	200	300
04	400	500
06	600	700
08	800	900
10	1000	1100
12	1200	1300
14	1400	1500
15	1500	1600
16	1600	1700
18	1800	1900
20	2000	2100
22	2200	2300
24	2400	2500
25	2500	2600
26	2600	2700
28	2800	2900
30	3000	3100
32	3200	3300
34	3400	3500
36	3600	3700
38	3800	3900
40	4000	4100
42	4200	4300
44	4400	4500
45	4500	4600
46	4600	4700
48	4800	4900
50	5000	5100
52	5200	5300
54	5400	5500
56	5600	5700
58	5800	5900