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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Type SCR, Commutating Capacitors

Type SCRN Film-Paper/Extended Foil Commutating Capacitor



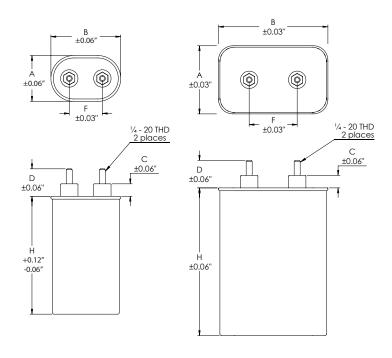
Type SCRN capacitors are for SCR (silicon controlled rectifier) commutating applications that require high peak and rms current capability. These capacitors are ideal for other high frequency and pulsed applications. The SCRN is supplied in oval or rectangular metal cases with $1/4 \times 20$ threaded stud and insulated terminals to withstand high current and high peak voltages.

Highlights

- Conforms to EIA RS401 for power semiconductor applications
- Non ferrous covers available for high frequency applications
- 40,000 hours life at full rated voltage and temperature
- High voltage, high current and high frequency
- Custom designs available

Custom designs available						
Capacitance Range	0.25 μF to 50.0 μF					
Capacitance Tolerance	±10%					
Rated Voltage	200 Vpk to 2000 Vpk					
Operating Temperature Range	-40 °C to +80 °C					
Maximum rms Current	Case codes: A, B, C, D = 60 Irms max. E and $F = 100$ Irms max.					
Maximum rms Voltage	see application guide					
Test Voltage between Terminal @ 25°C	DC voltage 2 x rated peak for 60 s					
Test Voltage between Terminals & Case @ 25°C	2 x reference AC voltage +1000 Vac for 60 s					
Life Test	EIA RS401					
Life Expectancy	40,000 h life at full rated voltage, current, case temperature and VA					
Reliability	Minimum of 95% survival					
Standards	EIA RS401					
Rohs Compliant						

Dimensions



Case Material	Tin Plated Steel or Aluminum
Encapsulation	Biodegradeable, Environmentally Compatible Fluid
Terminal Material	Electro-tin plated copper stud and molded pillar insulator

Construction Details

Case								
Code	A B		C	D	F	Н	Figure	
Α	1.31	2.16	0.56	1.19	0.81	see table	Fig. 1	
В	1.56	2.69	0.50	1.13	1.25	see table	Fig. 1	
С	1.91	2.91	0.50	1.13	1.38	see table	Fig. 1	
D	1.97	3.66	0.50	1.13	1.38	see table	Fig. 1	
E	2.84	4.56	0.50	1.13	2.00	see table	Fig. 2	
F	3.75	4.56	0.56	1.19	2.00	see table	Fig. 2	

Figure 1

Figure 2

Type SCR, Commutating Capacitors Type SCRN Film-Paper/Extended Foil Commutating Capacitor

Ratings

200 Vpk (Paper Dielectric)	Сар	Catalog	Case	Н	Max VA	Max	Сар	Catalog	Case	Н	Max VA	Max		
3 SCRN201R-F A 2.13 400 60 5 SCRN202R-F A 2.63 465 60 10 SCRN203R-F A 3.88 625 60 15 SCRN205R-F A 4.75 765 60 20 SCRN206R-F B 4.25 875 60 30 SCRN209R-F C 5.25 1200 60 40 SCRN209R-F C 6.75 1500 60 5 SCRN210R-F D 5.75 1590 60 3 SCRN210R-F A 2.63 790 60 3 SCRN211R-F A 2.63 790 60 3 SCRN213R-F A 2.63 790 60 3 SCRN213R-F A 2.63 790 60 3 SCRN213R-F A 2.63 970 60 5 SCRN213R-F A 2.63 970 60 10 SCRN218R-F C 4.75 2240 60 10 SCRN218R-F D 6.75 3720 60 3 SCRN219R-F D 6.75 3720 60 3 SCRN219R-F E 6.25 6050 100 5 SCRN218R-F D 8.00 4330 60 5 SCRN221R-F A 2.63 815 60 3 SCRN221R-F A 2.63 815 60 4 SCRN221R-F A 2.63 815 60 5 SCRN224R-F C 4.25 2040 60 5 SCRN224R-F C 4.25 2040 60 5 SCRN224R-F A 2.13 900 60 5 SCRN224R-F C 4.25 2040 60 5 SCRN224R-F A 2.13 900 60 5 SCRN224R-F A 2.25 2040 60 1 SCRN24R-F A 2.13 1000 60 2 SCRN24R-F A 2.13 1000 60 3 SCRN227R-F D 5.75 3260 60 2 SCRN248R-F A 3.13 1300 60 2 SCRN248R-F A 3.13 1300 60 3 SCRN25R-F D 6.75 3720 60 4 SCRN25R-F A 2.25 2040 60 5 SCRN248R-F A 2.13 1000 60 5 SCRN248R-F A 2.13 1000 60 5 SCRN24	(μ F)	Part Number	Code	(Inches)	(65 °C)	(Arms)	(μ F)	Part Number	Code	(Inches)	(65 °C)	(Arms)		
5 SCRN202R-F A 2.63 465 60 2 SCRN263R-F A 2.38 2060 66 10 SCRN203R-F A 3.88 625 60 3 SCRN264R-F A 3.88 3190 66 15 SCRN206R-F A 4.75 765 60 5 SCRN266R-F A 4.25 4380 66 20 SCRN206R-F C 5.25 1200 60 100 SCRN266R-F C 4.25 6660 66 30 SCRN209R-F C 6.75 1500 60 1 SCRN233R-F A 2.13 790 60 400 SCRN210R-F D 5.75 1590 60 2 SCRN234R-F A 3.13 1070 60 3 SCRN211R-F D 2.63 790 60 5 SCRN236R-F B 4.25 1785 60 3 SCRN211R-F A 2.63 970 60 10 SCRN237R-F	200 Vpk (Paper Dielectric)							600 Vpk (Film Dielectric for Low-loss)						
10 SCRN203R-F A 3.88 625 60 3 SCRN264R-F A 3.88 3190 60 60 60 60 60 60 60	3	SCRN201R-F	Α	2.13	400	60	1	SCRN262R-F	Α	2.38	2200	60		
15 SCRN205R-F A 4.75 765 60	5	SCRN202R-F	Α	2.63	465	60	2	SCRN263R-F	Α	2.38	2060	60		
10 SCRN266R-F C 4.25 6060 6060	10	SCRN203R-F	Α	3.88	625	60	3	SCRN264R-F	Α	3.88	3190	60		
1000 Vpk (Film and Paper Dielectric) 1	15	SCRN205R-F	Α	4.75	765	60	5	SCRN265R-F	Α	4.25	4380	60		
1 SCRN233R-F A 2.13 790 60 3 SCRN210R-F A 2.63 790 60 400 Vpk (Film and Paper Dielectric) 2 SCRN211R-F A 2.63 790 60 3 SCRN212R-F A 2.63 970 60 5 SCRN213R-F A 3.88 1130 60 10 SCRN213R-F A 3.88 1130 60 10 SCRN214R-F B 4.75 1930 60 10 SCRN215R-F C 4.75 2240 60 20 SCRN215R-F C 6.25 2800 60 30 SCRN217R-F D 6.75 3720 60 40 SCRN218R-F D 8.00 4330 60 50 SCRN219R-F E 6.25 6050 100 600 Vpk (Film and Paper Dielectric) 2 SCRN221R-F A 2.63 815 60 3 SCRN221R-F A 2.63 815 60 40 SCRN224R-F A 2.63 815 60 5 SCRN224R-F A 2.63 815 60 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F A 2.63 815 60 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F A 2.63 815 60 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F A 2.63 815 60 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F A 2.63 815 60 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F A 2.63 815 60 6 D D D D D D 6 D D D D D D 7 SCRN224R-F A 2.63 815 60 8 SCRN225R-F A 2.63 815 60 9 SCRN224R-F A 2.63 815 60 10 SCRN224	20	SCRN206R-F	В	4.25	875	60	10	SCRN266R-F	С	4.25	6060	60		
50 SCRN210R-F D 5.75 1590 60 400 Vpk (Film and Paper Dielectric) 2 SCRN211R-F A 2.63 790 60 5 SCRN236R-F B 4.25 1785 60 3 SCRN212R-F A 2.63 970 60 10 SCRN237R-F C 5.75 2570 60 5 SCRN213R-F A 3.88 1130 60 15 SCRN237R-F C 5.75 2570 60 10 SCRN213R-F A 3.88 1130 60 15 SCRN238R-F D 5.75 3170 60 10 SCRN214R-F B 4.75 1930 60 15 SCRN238R-F D 5.75 3170 60 20 SCRN217R-F C 4.75 2240 60 1 SCRN240R-F A 2.13 990 60 30 SCRN217R-F D 8.00 4330	30	SCRN208R-F	С	5.25	1200	60		1000 Vpk (F	ilm and	Paper Die	lectric)			
400 Vpk (Film and Paper Dielectric) 2 SCRN211R-F A 2.63 790 60 5 SCRN236R-F B 4.25 1785 60 3 SCRN212R-F A 2.63 970 60 10 SCRN237R-F C 5.75 2570 60 5 SCRN213R-F A 3.88 1130 60 15 SCRN237R-F C 5.75 2570 60 10 SCRN214R-F B 4.75 1930 60 20 SCRN239R-F E 5.13 5200 10 15 SCRN216R-F C 4.75 2240 60 15 SCRN239R-F E 5.13 5200 10 30 SCRN216R-F C 6.25 2800 60 1 SCRN249R-F A 2.13 990 60 30 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240 60	40	SCRN209R-F	C	6.75	1500	60	1	SCRN233R-F	Α	2.13	790	60		
2 SCRN211R-F A 2.63 790 60 3 SCRN212R-F A 2.63 970 60 5 SCRN213R-F A 3.88 1130 60 10 SCRN213R-F B 4.75 1930 60 11 SCRN214R-F B 4.75 1930 60 12 SCRN215R-F C 4.75 2240 60 23 SCRN215R-F C 6.25 2800 60 30 SCRN217R-F D 6.75 3720 60 40 SCRN218R-F D 8.00 4330 60 5 SCRN218R-F B 4.25 12550 60 600 Vpk (Film and Paper Dielectric) 2 SCRN220R-F A 2.63 815 60 3 SCRN221R-F A 3.13 1200 60 5 SCRN221R-F A 3.13 1200 60 10 SCRN221R-F A 4.25 1420 60 11 SCRN224R-F B 5.13 5200 100 2 SCRN221R-F A 4.25 1420 60 3 SCRN221R-F A 3.13 1200 60 1 SCRN224R-F C 4.25 2040 60 1 SCRN224R-F A 2.13 990 60 2 SCRN227R-F A 4.25 1420 60 3 SCRN227R-F A 4.25 1420 60 4 SCRN227R-F A 4.25 1420 60 5 SCRN227R-F A 4.25 1420 60 6 SCRN227R-F A 4	50	SCRN210R-F	D	5.75	1590	60	2	SCRN234R-F	Α	3.13	1070	60		
3 SCRN212R-F A 2.63 970 60 10 SCRN237R-F C 5.75 2570 60 5 SCRN213R-F A 3.88 1130 60 15 SCRN238R-F D 5.75 3170 60 10 SCRN214R-F B 4.75 1930 60 20 SCRN239R-F E 5.13 5200 10 15 SCRN215R-F C 4.75 2240 60 1500 Vpk (Film and Paper Dielectric) 5 SCRN240R-F A 2.13 990 60 30 SCRN217R-F D 6.75 3720 60 1 SCRN241R-F A 2.88 1240 60 40 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240 60 50 SCRN219R-F E 6.25 6050 100 3 SCRN24R-F C 5.75 3250 60 5		400 Vpk (Fi	lm and	Paper Diel	ectric)		3	SCRN235R-F	Α	3.88	1455	60		
5 SCRN213R-F A 3.88 1130 60 15 SCRN238R-F D 5.75 3170 60 10 SCRN214R-F B 4.75 1930 60 20 SCRN239R-F E 5.13 5200 10 15 SCRN215R-F C 4.75 2240 60 1500 Vpk (Film and Paper Dielectric) 1500 Vpk (Film and Paper Dielectric) 20 SCRN217R-F C 6.25 2800 60 1500 Vpk (Film and Paper Dielectric) 250 SCRN241R-F A 2.13 990 60 600 600 1500 Vpk (Film and Paper Dielectric) 600 Vpk (Film and Paper Dielectric) 600 Vpk (Film and Paper D	2	SCRN211R-F	Α	2.63	790	60	5	SCRN236R-F	В	4.25	1785	60		
10 SCRN214R-F B 4.75 1930 60 15 SCRN215R-F C 4.75 2240 60 20 SCRN216R-F C 6.25 2800 60 30 SCRN217R-F D 6.75 3720 60 1 SCRN240R-F A 2.13 990 60 40 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240 60 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 60 600 Vpk (Film and Paper Dielectric) 3 SCRN243R-F C 4.25 2550 60 2 SCRN220R-F A 2.63 815 60 10 SCRN244R-F C 5.75 3250 60 3 SCRN222R-F A 4.25 1420 60 20 20 20 20 20 20 20	3	SCRN212R-F	Α	2.63	970	60	10	SCRN237R-F	C	5.75	2570	60		
15 SCRN215R-F C 4.75 2240 60 20 SCRN216R-F C 6.25 2800 60 5 SCRN240R-F A 2.13 990 60 30 SCRN217R-F D 6.75 3720 60 1 SCRN241R-F A 2.88 1240 60 40 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240 60 50 SCRN219R-F E 6.25 6050 100 3 SCRN242R-F B 3.50 1890 60 600 Vpk (Film and Paper Dielectric) 5 SCRN244R-F C 5.75 3250 60 2 SCRN220R-F A 2.63 815 60 10 SCRN245R-F E 5.13 6500 10 3 SCRN222R-F A 4.25 1420 60 25 SCRN246R-F A 2.13 990 60 <td>5</td> <td>SCRN213R-F</td> <td>Α</td> <td>3.88</td> <td>1130</td> <td>60</td> <td>15</td> <td>SCRN238R-F</td> <td>D</td> <td>5.75</td> <td>3170</td> <td>60</td>	5	SCRN213R-F	Α	3.88	1130	60	15	SCRN238R-F	D	5.75	3170	60		
20 SCRN216R-F C 6.25 2800 60 .5 SCRN240R-F A 2.13 990 60 30 SCRN217R-F D 6.75 3720 60 1 SCRN241R-F A 2.88 1240 60 40 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240 60 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 60 600 Vpk (Film and Paper Dielectric) 5 SCRN244R-F C 5.75 3250 60 2 SCRN220R-F A 2.63 815 60 10 SCRN245R-F E 5.13 6500 10 3 SCRN221R-F A 4.25 1420 60 25 SCRN246R-F A 2.13 990 60 10 SCRN224R-F C 4.25 2040 60	10	SCRN214R-F	В	4.75	1930	60	20	SCRN239R-F	Е	5.13	5200	100		
30 SCRN217R-F D 6.75 3720 60 1 SCRN241R-F A 2.88 1240 60 40 SCRN218R-F D 8.00 4330 60 2 SCRN242R-F B 3.50 1890 60 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 60 600 Vpk (Film and Paper Dielectric) 5 SCRN244R-F C 5.75 3250 60 2 SCRN220R-F A 2.63 815 60 10 SCRN245R-F E 5.13 6500 10 3 SCRN221R-F A 3.13 1200 60 2000 Vpk (Film and Paper Dielectric) 2.5 SCRN246R-F A 2.13 990 60 10 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 60 15 SCRN224R-F C 5.75	15	SCRN215R-F	C	4.75	2240	60		1500 Vpk (Film and Paper Dielectric)						
40 SCRN218R-F D 8.00 4330 60 2 SCRN242R-F B 3.50 1890 60 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 60 600 Vpk (Film and Paper Dielectric) 5 SCRN244R-F C 5.75 3250 60 3 SCRN221R-F A 2.63 815 60 10 SCRN245R-F E 5.13 6500 10 3 SCRN221R-F A 3.13 1200 60 2000 Vpk (Film and Paper Dielectric) 20 25 SCRN224R-F A 2.13 990 60 33 SCRN224R-F A 2.13 990 60 33 SCRN224R-F A 2.13 1000 60 33 SCRN247R-F A 2.63 1180 60 60 35 SCRN247R-F A 2.63 1180 60 60 60 1 SCRN247R-F A <t< td=""><td>20</td><td>SCRN216R-F</td><td>С</td><td>6.25</td><td>2800</td><td>60</td><td>.5</td><td>SCRN240R-F</td><td>Α</td><td>2.13</td><td>990</td><td>60</td></t<>	20	SCRN216R-F	С	6.25	2800	60	.5	SCRN240R-F	Α	2.13	990	60		
50 SCRN219R-F E 6.25 6050 100 600 Vpk (Film and Paper Dielectric) 2 SCRN220R-F A 2.63 815 60 3 SCRN221R-F A 3.13 1200 60 5 SCRN222R-F A 4.25 1420 60 10 SCRN224R-F C 4.25 2040 60 15 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 60 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 60 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 60 25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 30 SCRN230R-F D 8.	30	SCRN217R-F	D	6.75	3720	60	1	SCRN241R-F	Α	2.88	1240	60		
600 Vpk (Film and Paper Dielectric) 2 SCRN220R-F A 2.63 815 60 3 SCRN221R-F A 3.13 1200 60 5 SCRN222R-F A 4.25 1420 60 10 SCRN224R-F C 4.25 2040 60 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 60 20 SCRN227R-F D 5.75 3260 60 .5 SCRN248R-F A 2.63 1180 60 25 SCRN227R-F D 5.75 3260 60 .5 SCRN247R-F A 2.63 1180 60 25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 25 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2	40	SCRN218R-F	D	8.00	4330	60	2	SCRN242R-F	В	3.50	1890	60		
2 SCRN220R-F A 2.63 815 60 3 SCRN221R-F A 3.13 1200 60 5 SCRN222R-F A 4.25 1420 60 10 SCRN224R-F C 4.25 2040 60 15 SCRN226R-F C 5.75 2800 60 20 SCRN227R-F D 5.75 3260 60 25 SCRN229R-F D 6.75 3720 60 25 SCRN230R-F D 8.00 4330 60	50	SCRN219R-F	Е	6.25	6050	100	3	SCRN243R-F	C	4.25	2550	60		
3 SCRN221R-F A 3.13 1200 60 5 SCRN222R-F A 4.25 1420 60 .25 SCRN246R-F A 2.13 990 60 10 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 60 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 60 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 60 25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800 60		600 Vpk (Fi	lm and	Paper Diel	ectric)		5 SCRN244R-F C 5.75 3250 6					60		
5 SCRN222R-F A 4.25 1420 60 .25 SCRN246R-F A 2.13 990 60 10 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 60 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 60 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 60 25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800 60	2	SCRN220R-F	Α	2.63	815	60	10	SCRN245R-F	E	5.13	6500	100		
10 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 60 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 60 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 60 25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800 60	3	SCRN221R-F	Α	3.13	1200	60	2000 Vpk (Film and Paper Dielectric)							
15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 60 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 60 25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800 60	5	SCRN222R-F	Α	4.25	1420	60	.25	SCRN246R-F	Α	2.13	990	60		
20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 60 25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800 60	10	SCRN224R-F	C	4.25	2040	60	.33	SCRN257R-F	Α	2.13	1000	60		
25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F B 4.25 2230 60 30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800 60	15	SCRN226R-F	C	5.75	2800	60	.5	SCRN247R-F	Α	2.63	1180	60		
30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800 60	20	SCRN227R-F	D	5.75	3260	60	1	SCRN248R-F	Α	3.13	1300	60		
	25	SCRN229R-F	D	6.75	3720	60	2	SCRN249R-F	В	4.25	2230	60		
40 SCRN231R-F E 6.25 6060 100 5 SCRN253R-F D 5.75 4020 60	30	SCRN230R-F	D	8.00	4330	60	3	SCRN251R-F	С	4.75	2800	60		
]	40	SCRN231R-F	E	6.25	6060	100	5	SCRN253R-F	D	5.75	4020	60		
50 SCRN232R-F E 7.25 6850 100 10 SCRN256R-F F 5.75 7600 10	50	SCRN232R-F	Е	7.25	6850	100	10	SCRN256R-F	F	5.75	7600	100		

Type SCR, Commutating Capacitors

Type SCRN Film-Paper/Extended Foil Commutating Capacitor Application Guide

How to Choose a Commutating Capacitor

 $1. From \ circuit \ analysis \ or \ measurement, \ determine \quad application \ values \\ for \ these \ six \ parameters:$

Nominal capacitance in µF Current pulse width in µs Current pulse period in µs Maximum peak voltage Continuous AC voltage in Vrms Maximum volt-amps (VA)

2. Choose a capacitor from the ratings table of the desired nominal capacitance with a peak voltage rating no less than your maximum peak voltage.

Using Volt-Ampere Ratings

The capacitors maximum VA rating is the maximum product of the sine wave voltage and current that may be applied at 65 °C without overheating the capacitor and reducing its expected life. For other temperatures and pulsed current, use the multipliers of Figures 2 and 3 to derate the Max VA rating.

The Max Amps RMS rating is set by the capability of the capacitor terminals. Exceeding this limit can damage the terminals and cause capacitor failure.

Calculate the capacitor's actual VA load as the product of the rms voltage across the capacitor and the rms current through the capacitor. To calculate rms current for an applied sine wave or squarewave voltage, use these equations.

For a sinewave voltage the current is:

Irms = 2π fCVrmsX10⁻⁶

and for a squarewave the current is:

Irms = $C\triangle V/[0.64(tT)^{0.5}] = Ipeak(t/T)^{0.5}$

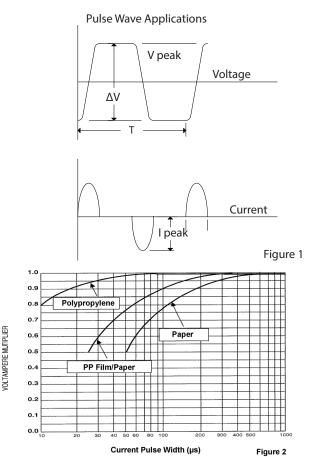
where (f) is repetition frequency in Hz, C is nominal capacitance in μ F, Δ V the peak-to-peak squarewave amplitude in volts, (t) is the pulse width in μ s and T is the pulse period in μ s.

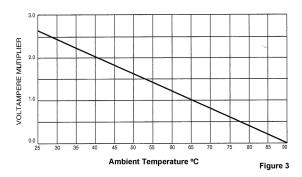
The peak current for the square wave voltage is:

 $lpeak = C\Delta V/0.64t$

- 3. Check that your application's rms current is no more than the capacitor's Max. Amps RMS. You can calculate the current from your Vrms using the equations in the following section.
- 4. Check that your application's volt-amperes is not more than the capacitor's VA capability. The VA capability is the max VA rating times the Volt-Ampere multiplier from Figure 2 (Current Pulse Width) and that times the Volt-Ampere Multiplier from Figure 3 (Ambient Temperature). See the following section for more on using volt-ampere multipliers.

If you need a greater VA capability, repeat these steps for a higher peak voltage capacitor or consider connecting units in parallel to divide the VA required. For up to peak voltage of 600 V, you may also consider polypropylene film dielectric units, Catalog Numbers SCRN262R through SCRN266R, with higher VA capability.





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