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

Specifications	- 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

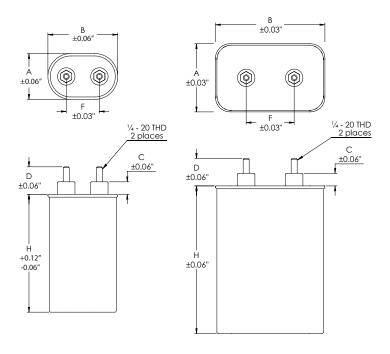


Figure 1	Figure

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

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	

2

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

Ratings

Part Number Code (Inches) (65 °C) (Arms) (µF) Part Number Code (Inches) (65 °C)		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 SCRN208R-F C 5.25 1200 60 40 SCRN209R-F C 6.75 1500 60 5 SCRN210R-F D 5.75 1590 60 2 SCRN211R-F D 5.75 1590 60 2 SCRN23R-F A 2.13 790 50 SCRN211R-F A 2.63 790 60 2 SCRN23R-F A 3.88 1455 2 SCRN213R-F A 2.63 790 60 10 SCRN23R-F B 4.25 1785 3 SCRN213R-F A	P	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 10 SCRN203R-F A 3.88 625 60 3 SCRN264R-F A 3.88 3190 15 SCRN205R-F A 4.75 765 60 5 SCRN265R-F A 4.25 4380 20 SCRN206R-F B 4.25 875 60 10 SCRN266R-F C 4.25 6060 30 SCRN208R-F C 5.25 1200 60 1 SCRN266R-F C 4.25 6060 40 SCRN209R-F C 6.75 1500 60 2 SCRN234R-F A 2.13 790 50 SCRN211R-F D 5.75 1590 60 2 SCRN234R-F A 2.13 190 3 SCRN211R-F A 2.63 970 60 10 SCRN237R-F C 5.75		200 Vp	k (Pape	r Dielectri	c)		600 Vpk (Film Dielectric for Low-loss)					
10 SCRN203R-F A 3.88 625 60 3 SCRN264R-F A 3.88 3190 15 SCRN205R-F A 4.75 765 60 5 SCRN265R-F A 4.25 4380 20 SCRN206R-F B 4.25 875 60 10 SCRN266R-F C 4.25 6060 30 SCRN208R-F C 5.25 1200 60 1000 Vpk (Film and Paper Dielectric) 40 SCRN209R-F C 6.75 1500 60 1 SCRN233R-F A 3.13 1070 400 Vpk (Film and Paper Dielectric) 3 SCRN234R-F A 3.13 1070 400 Vpk (Film and Paper Dielectric) 3 SCRN235R-F A 3.88 1455 2 SCRN211R-F A 2.63 790 60 10 SCRN237R-F C 5.75 2570 5 SCRN213R-F A 3.88 1130 60 15 SCRN237R-F C 5.75 2570 10 SCRN214R-F B 4.75 1930 60 15 SCRN238R-F D 5.75 3170 10 SCRN214R-F B 4.75 1930 60 15 SCRN239R-F E 5.13 5200 15 SCRN215R-F C 4.75 2240 60 15 SCRN247R-F A 2.88 1240 40 SCRN218R-F D 8.00 4330 60 2 SCRN247R-F A 2.88 1240 40 SCRN218R-F D 8.00 4330 60 2 SCRN247R-F A 2.88 1240 40 SCRN218R-F D 8.00 4330 60 2 SCRN247R-F A 2.88 1240 40 SCRN218R-F D 8.00 4330 60 2 SCRN247R-F A 2.13 990 50 SCRN219R-F E 6.25 6050 100 3 SCRN247R-F C 4.25 2550 5 SCRN220R-F A 2.63 815 60 3 SCRN247R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 3 SCRN247R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 3 SCRN247R-F A 2.13 1000 15 SCRN224R-F C 5.75 2800 60 5 SCRN247R-F A 2.13 1000 15 SCRN224R-F C 5.75 2800 60 5 SCRN247R-F A 2.63 1180 20 SCRN27-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 10 SCRN247R-F D 5.75 3260 60 1 SCRN247R-F A 2.63 1180 20 SCRN27-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 10 SCRN247R-F D 5.75 3260 60 1 SCRN247R-F A 2.63 1180 20 SCRN27-F	9	SCRN201R-F	Α	2.13	400	60	1	SCRN262R-F	Α	2.38	2200	60
15 SCRN205R-F A 4.75 765 60 20 SCRN206R-F B 4.25 875 60 30 SCRN208R-F C 5.25 1200 60 40 SCRN209R-F C 6.75 1500 60 50 SCRN210R-F D 5.75 1590 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 15 SCRN213R-F A 3.88 1130 60 15 SCRN215R-F C 4.75 2240 60 20 SCRN217R-F D 6.75 3720 60 30 SCRN217R-F D 6.75 3720 60 40 SCRN218R-F D 8.00 4330 60 5 SCRN218R-F A 2.63 815 60 3 SCRN212R-F A 2.63 815 60 3 SCRN222R-F A 4.25 1420 60 5 SCRN224R-F C 4.25 2550 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F C 4.25 2550 600 SCRN224R-F C 4.25 2550 600 SCRN224R-F C 4.25 2550 600 SCRN224R-F C 4.25 2400 60 3 SCRN224R-F A 2.63 815 60 3 SCRN224R-F A 2.63 815 60 3 SCRN224R-F A 2.63 815 60 5 SCRN224R-F A 2.63 1180 5 SCRN224R-F C 4.25 2040 60 5 SCRN227R-F D 5.75 3260 60 6 SCRN227R-F D 5.75 3260 60 7 SCRN224R-F A 3.13 1300 7 SCRN224R-F C 4.25 2040 60 7 SCRN224R-F A 2.13 1000 8 SCRN227R-F D 5.75 3260 60 9 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300 1 SCRN248R-F A 3.13 1300	9	SCRN202R-F	Α	2.63	465	60	2	SCRN263R-F	Α	2.38	2060	60
20 SCRN206R-F B 4.25 875 60 30 SCRN208R-F C 5.25 1200 60 40 SCRN209R-F C 6.75 1500 60 50 SCRN210R-F D 5.75 1590 60 2 SCRN23R-F A 3.13 1070 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 SCRN23R-F B 4.25 1785 3 SCRN213R-F A 3.88 1130 60 10 SCRN23R-F B 4.25 1785 3 SCRN213R-F A 3.88 1130 60 10 SCRN23R-F D 5.75 3170 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 40 SCRN218R-F D 8.00 4330 60 50 SCRN219R-F E 6.25 6050 100 50 SCRN219R-F E 6.25 6050 100 50 SCRN219R-F E 6.25 6050 100 5 SCRN220R-F A 2.63 815 60 3 SCRN221R-F A 3.13 1200 60 5 SCRN222R-F A 4.25 1420 60 5 SCRN224R-F C 4.25 2040 60 1 SCRN248R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 1 SCRN248R-F A 2.13 1000 15 SCRN224R-F C 5.75 2800 60 20 SCRN248R-F A 2.13 1000 15 SCRN224R-F C 4.25 2040 60 15 SCRN224R-F A 2.13 1000 15 SCRN224R-F C 5.75 2800 60 1 SCRN248R-F A 3.13 1300 1 SCRN248R-F		SCRN203R-F	Α	3.88	625	60	3	SCRN264R-F	Α	3.88	3190	60
30 SCRN208R-F C 5.25 1200 60 40 SCRN209R-F C 6.75 1500 60 50 SCRN210R-F D 5.75 1590 60 2 SCRN238R-F A 3.13 1070 400 Vpk (Film and Paper Dielectric) 2 SCRN211R-F A 2.63 790 60 3 SCRN212R-F A 3.88 1130 60 10 SCRN213R-F B 4.75 1930 60 15 SCRN213R-F C 4.75 2240 60 15 SCRN214R-F D 6.75 3720 60 30 SCRN218R-F D 8.00 4330 60 400 Vpk (Film and Paper Dielectric) 20 SCRN218R-F D 8.00 4330 60 3 SCRN219R-F E 6.25 6050 100 5 SCRN219R-F E 6.25 6050 100 5 SCRN218R-F D 8.00 4330 60 5 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 SCRN224R-F C 4.25 2550 5 SCRN224R-F C 4.25 2550 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F A 2.63 815 60 3 SCRN227R-F A 2.63 815 60 3 SCRN227R-F A 2.63 815 60 3 SCRN224R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 15 SCRN224R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 15 SCRN247R-F A 2.13 1000 15 SCRN224R-F C 4.25 2040 60 15 SCRN247R-F A 2.13 1000 15 SCRN227R-F D 5.75 3260 60 1 SCRN247R-F A 3.13 1300 1 SCRN247R-F A	9	SCRN205R-F	Α	4.75	765	60	5	SCRN265R-F	Α	4.25	4380	60
1 SCRN23R-F A 2.13 790	9	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 3 SCRN212R-F A 2.63 970 60 10 SCRN237R-F C 5.75 2570 5 SCRN213R-F A 3.88 1130 60 15 SCRN237R-F C 5.75 2570 10 SCRN213R-F A 3.88 1130 60 15 SCRN238R-F D 5.75 3170 10 SCRN215R-F C 4.75 2240 60 15 SCRN239R-F E 5.13 5200 15 SCRN216R-F C 6.25 2800 60 1 SCRN240R-F A 2.13 990 30 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240		SCRN208R-F	С	5.25	1200	60		1000 Vpk (F	ilm and	Paper Die	lectric)	
3 SCRN235R-F A 3.88 1455	9	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 A 3.88 1130 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 40 SCRN218R-F D 8.00 4330 60 50 SCRN219R-F E 6.25 6050 100 600 Vpk (Film and Paper Dielectric) 3 SCRN24R-F C 4.25 2550 5 SCRN221R-F A 2.63 815 60 10 SCRN244R-F C 5.75 3250 5 SCRN222R-F A 4.25 <td< td=""><td>9</td><td>SCRN210R-F</td><td>D</td><td>5.75</td><td>1590</td><td>60</td><td>2</td><td>SCRN234R-F</td><td>Α</td><td>3.13</td><td>1070</td><td>60</td></td<>	9	SCRN210R-F	D	5.75	1590	60	2	SCRN234R-F	Α	3.13	1070	60
3 SCRN212R-F A 2.63 970 60 5 SCRN213R-F A 3.88 1130 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 40 SCRN218R-F D 8.00 4330 60 50 SCRN219R-F E 6.25 6050 100 50 SCRN219R-F E 6.25 6050 100 600 Vpk (Film and Paper Dielectric) 5 SCRN244R-F C 5.75 3250 2 SCRN221R-F A 2.63 815 60 10 SCRN244R-F C 5.75 3250 5 SCRN222R-F A 4.25 1420 60 2000 Vpk (Film and Paper Dielectric) 5 SCRN224R-F<		400 Vpk (Fi	lm and	Paper Diel	ectric)		3	SCRN235R-F	Α	3.88	1455	60
5 SCRN213R-F A 3.88 1130 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 SCRN241R-F A 2.88 1240 40 SCRN219R-F E 6.25 6050 100 2 SCRN241R-F A 2.88 1240 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 5 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 5 SCRN220R-F A 2.63 815 60 5 SCRN244R-F C 5.75 3250 5 SCRN222R-F A 4.25 1420 60	9	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 SCRN241R-F A 2.88 1240 40 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 600 Vpk (Film and Paper Dielectric) 5 SCRN243R-F C 4.25 2550 2 SCRN220R-F A 2.63 815 60 10 SCRN244R-F C 5.75 3250 3 SCRN221R-F A 4.25 1420 60 200 Vpk (Film and Paper Dielectric) 25 SCRN246R-F A 2.13 990 10 SCRN224R-F	9	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 30 SCRN217R-F D 6.75 3720 60 1 SCRN241R-F A 2.88 1240 40 SCRN218R-F D 8.00 4330 60 2 SCRN241R-F A 2.88 1240 50 SCRN219R-F E 6.25 6050 100 3 SCRN242R-F B 3.50 1890 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 2 SCRN220R-F A 2.63 815 60 10 SCRN244R-F C 5.75 3250 3 SCRN221R-F A 4.25 1420 60 200 Vpk (Film and Paper Dielectric) 5 SCRN224R-F C 4.25 2040 60 25 SCRN246R-F A 2.13 9	9	SCRN213R-F	Α	3.88	1130	60	15	SCRN238R-F	D	5.75	3170	60
20 SCRN216R-F C 6.25 2800 60 30 SCRN217R-F D 6.75 3720 60 1 SCRN241R-F A 2.88 1240 40 SCRN218R-F D 8.00 4330 60 2 SCRN242R-F A 2.88 1240 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 600 Vpk (Film and Paper Dielectric) 5 SCRN224R-F C 5.75 3250 2 SCRN221R-F A 2.63 815 60 10 SCRN245R-F E 5.13 6500 3 SCRN221R-F A 4.25 1420 60 2000 Vpk (Film and Paper Dielectric) 5 SCRN224R-F C 4.25 2040 60 25 SCRN246R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 25 SCRN247R-F A	9	SCRN214R-F	В	4.75	1930	60	20	SCRN239R-F	Е	5.13	5200	100
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 SCRN220R-F A 2.63 815 60 3 SCRN221R-F A 3.13 1200 60 10 SCRN244R-F C 5.75 3250 5 SCRN221R-F A 4.25 1420 60 2000 Vpk (Film and Paper Dielectric) 5 SCRN224R-F C 4.25 1420 60 2000 Vpk (Film and Paper Dielectric) 10 SCRN224R-F A 4.25 1420 60 25 SCRN246R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 33 SCRN257R-F A 2.13 1000 15 SCRN226R-F C 5.75 2800 60 5 SCR	9	SCRN215R-F	C	4.75	2240	60		1500 Vpk (F	ilm and	Paper Die	lectric)	
40 SCRN218R-F D 8.00 4330 60 2 SCRN242R-F B 3.50 1890 50 SCRN219R-F E 6.25 6050 100 3 SCRN243R-F C 4.25 2550 2 SCRN220R-F A 2.63 815 60 10 SCRN245R-F E 5.13 6500 3 SCRN221R-F A 3.13 1200 60 2000 Vpk (Film and Paper Dielectric) 5 SCRN222R-F A 4.25 1420 60 25 SCRN246R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300	9	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 10 SCRN246R-F A 2.13 990 3 SCRN227R-F A 2.13 1000 20 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300	9	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 SCRN246R-F E 5.13 6500 2000 Vpk (Film and Paper Dielectric) .25 SCRN246R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300	9	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 1420 60 10 SCRN224R-F A 2.13 990 10 SCRN224R-F A 2.13 1000 10 SCRN24F-F A 2.13 1000 20 SCRN224R-F C 4.25 2040 60 33 SCRN257R-F A 2.13 1000 10 SCRN24F-F E 5.13 6500 60 2000 Vpk (Film and Paper Dielectric) 20 SCRN224R-F C 4.25 2040 60 33 SCRN257R-F A 2.13 1000 20 SCRN227R-F D 5.75 3260 60 5 SCRN247R-F A 2.63 1180 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300<	9	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 10 SCRN224R-F C 4.25 2040 60 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.13 1000 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300		600 Vpk (Fi	lm and	Paper Diel	ectric)		5	5 SCRN244R-F C 5.75 3250				60
5 SCRN222R-F A 4.25 1420 60 .25 SCRN246R-F A 2.13 990 10 SCRN224R-F C 4.25 2040 60 .33 SCRN257R-F A 2.13 1000 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300	9	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 15 SCRN226R-F C 5.75 2800 60 .5 SCRN247R-F A 2.63 1180 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300	9	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 20 SCRN227R-F D 5.75 3260 60 1 SCRN248R-F A 3.13 1300		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	9	SCRN224R-F	C	4.25	2040	60	.33	SCRN257R-F	Α	2.13	1000	60
	9	SCRN226R-F	C	5.75	2800	60	.5	SCRN247R-F	Α	2.63	1180	60
25 SCRN229R-F D 6.75 3720 60 2 SCRN249R-F R 4.25 2220		SCRN227R-F	D	5.75	3260	60	1	SCRN248R-F	Α	3.13	1300	60
25 3CHIVETON 2 3CHIVETON 4.23 2230	9	SCRN229R-F	D	6.75	3720	60	2	SCRN249R-F	В	4.25	2230	60
30 SCRN230R-F D 8.00 4330 60 3 SCRN251R-F C 4.75 2800	9	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		SCRN231R-F	Е	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	9	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 = $C\Delta V/[0.64(tT)^{0.5}]$ = Ipeak(t/T)^{0.5}

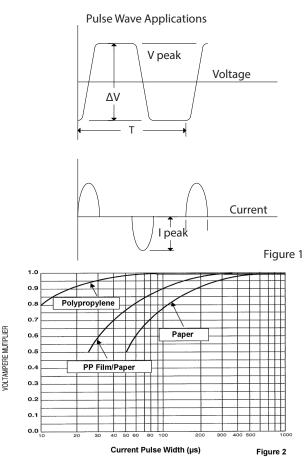
where (f) is repetition frequency in Hz, C is nominal capacitance in μ F, Δ V the peak-to-peak squarewave amplitude in volts, (t) is the pulse width in μ s and T is the pulse period in μ s.

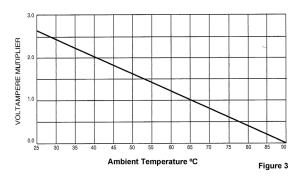
The peak current for the square wave voltage is:

 $lpeak = C\Delta V/0.64t$

- 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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