

PWS

Axial leaded polypropylene film with aluminum foil electrodes capacitors for power semiconductors



Features

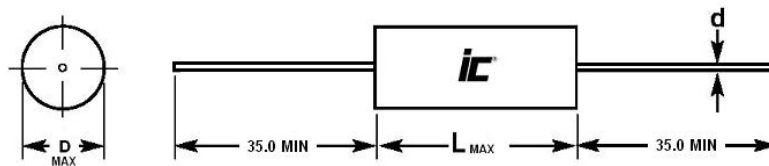
- Self Healing
- High current
- Low ESR
- High pulse current ratings

Applications

- Power semiconductor circuits
- SRC Commutation
- Switching power supplies
- Deflection circuits

Specifications

Operating Temperature Range	-55°C to +105°C					
Capacitance Tolerance	±10% at 1 kHz, 25°C +5% optional					
AC voltage (50/60 Hz)	WVDC	630	1000	1500	2000	
	VAC	300	400	450	500	
	For T>+85°C , The voltage (DC/AC) must be decreased by 1.5% per °C					
Dissipation Factor (MAX) 25°C	Frequency (kHz)	C≤0.001uF		.001<C≤0.1uF		C>0.1uF
	10	-		0.05%		0.1%
	100	.01%		-		-
Insulation Resistance @25°C (<70% RH)for 1 minute at 100VDC applied	Capacitance		Insulation Resistance			
	≤0.1μF		100000 MΩ			
	>0.1μF		30000 MΩxμF			
Self Inductance	<1 nano-Henry per mm of lead spacing					
Capacitance Drift Factor	<0.5% after 2 years at 40°C					
Load Life	1000 Hours, +85C with 150% of rated voltage					
	Capacitance Change			≤1% of initially measured value		
	Dissipation Factor			≤0.0005 at 10kHz and 25°C for C≤0.1uF ≤0.001 at 1kHz and 25°C for C>0.1uF		
	Insulation Resistance			≥50% of maximum specified value		
Reliability (0.5xRated Voltage, 40°C) 1 FIT=1 failure/1 billion component hours	1 Fit					
	Capacitance Change			≤10% of initially measured value		
	Dissipation Factor			≤200% of initially specified value		
	Insulation Resistance			≥50% of maximum specified value		
Damp Heat test	56 days at40°C with 90 to 95%RH, +40°C and no voltage applied					
	Capacitance Change			≤5% of initially measured value		
	Dissipation Factor			≤0.005 at 1kHz and 25°C		
	Insulation Resistance			≥50% of maximum specified value		
Self Inductance	<1 nano-Henry per mm of body length lead length					
Capacitance Drift Factor	<0.5% after 2 years at 40°C					
Capacitance Temperature Coefficient	-200 ppm/°C, ±100ppm/°C					
Dielectric Strength	Terminal to Terminal					
	200% of rated VDC applied for 2 Seconds and 25°C					
Dielectric	Polypropylene					
Construction	Aluminum foil with internal series connection and metalized film					
Coating	Flame Retardant polyester tape wrap (UL 510) with epoxy resin end fill(UL94V0)					
Leads	Lead free tinned copper leads					



WVDC	630		1000		1500		2000	
Capacitance	$C \leq .22$	$C > 0.22$	$C \leq .1$	$C > 0.1$	$C \leq .047$	$C > 0.047$	$C \leq .033$	$C > 0.033$
$d \pm 0.05$	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0

PWS

Axial Lead Metallized film
with foil electrodes
Polypropylene Capacitors

Capacitance (μ F)	WVDC	IC PART NUMBER	dv/dt (v/ μ sec.)	Dims DxL (mm)
0.001	2000	102PWS202KD	27000	9.5x21
0.0015	2000	152PWS202KD	27000	10.5x21
0.0022	1500	222PWS152KD	17000	9.5x21
0.0022	2000	222PWS202KD	27000	12.5x21
0.0033	1000	332PWS102KD	14000	9x21
0.0033	1500	332PWS152KD	17000	10.5x21
0.0033	2000	332PWS202KG	9800	9.5x29
0.0047	1000	472PWS102KD	14000	7x19
0.0047	1500	472PWS152KD	17000	12.5x21
0.0047	1500	472PWS152KG	6000	9x29
0.0047	2000	472PWS202KG	9800	10.5x29
0.0068	1000	682PWS102KD	14000	12x21
0.0068	1000	682PWS102KG	5000	8.5x29
0.0068	1500	682PWS152KG	6000	9.5x29
0.0068	2000	682PWS202KG	9800	12x29
0.01	1000	103PWS102KG	5000	9x29
0.01	1500	103PWS152KG	6000	10.5x29
0.01	2000	103PWS202KG	9800	14x29
0.015	630	153PWS630KD	4300	9x21
0.015	1000	153PWS102KG	5000	10.5x29
0.015	1500	153PWS152KG	6000	12.5x29
0.015	2000	153PWS202KG	9800	16.5x29
0.022	630	223PWS630KD	4300	10x21
0.022	1000	223PWS102KG	5000	12x29
0.022	1500	223PWS152KG	6000	14.5x29
0.022	2000	223PWS202KJ	7000	16.5x34

Capacitance (μ F)	WVDC	IC PART NUMBER	dv/dt (v/ μ sec.)	Dims DxL (mm)
0.033	630	333PWS630KD	4300	12x21
0.033	630	333PWS630KG	2600	9.5x29
0.033	1000	333PWS102KG	5000	14x29
0.033	1500	333PWS152KG	6000	18x29
0.033	1500	333PWS152KJ	4500	15x34
0.033	2000	333PWS202KJ	7000	20x34
0.047	630	473PWS630KG	2600	10.5x29
0.047	1000	473PWS102KG	5000	17x29
0.047	1000	473PWS102KJ	3700	14.5x34
0.047	1500	473PWS152KJ	4500	17.5x34
0.047	2000	473PWS202KJ	7000	22.5x34
0.068	630	683PWS630KG	2600	12x29
0.068	1000	683PWS102KJ	3700	17x34
0.068	1500	683PWS152KJ	4500	20.5x34
0.068	2000	683PWS202KJ	7000	27x34
0.1	630	104PWS630KG	2600	14x29
0.1	1000	104PWS102KJ	3700	19.5x34
0.1	1500	104PWS152KJ	4500	24x34
0.15	630	154PWS630KG	2600	17x29
0.15	630	154PWS630KJ	1800	14.5x34
0.15	1000	154PWS102KJ	3700	23.5x34
0.22	630	224PWS630KJ	1800	17x34
0.22	1000	224PWS102KJ	3700	28x34
0.33	630	334PWS630KJ	1800	20x34
0.47	630	474PWS630KJ	1800	24x34