

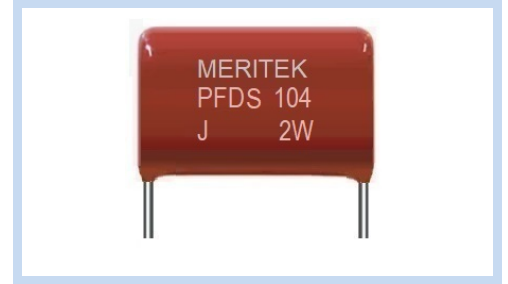
Metallized Polypropylene Film Capacitor Epoxy Coated

PFDS Series

MERITEK

FEATURES

- Operating temperature: -40°C ~ +105°C
- Segmented Design
- Small Inherent Temperature Rise
- Reference Standard: IEC 60384-16
- Flame Retardant Epoxy Resin Coating UL94V-0



PART NUMBERING SYSTEM

PFDS 104 J 2W 10
(1) (2) (3) (4) (5)



No	item	Code	Description	
(1)	Meritek Series	PFDS	Metallized Polypropylene Film Capacitor; Segmented Design Epoxy Coated Type	
(2)	Capacitance	104	104: 0.10μF	First two digit: Significant, Third: Multiplier
(3)	Tolerance	J	J: ±5%	K: ±10%; M: ±20%
(4)	Rated Voltage	2W	2W: 450VDC	DC Voltage Code
(5)	Internal Code	10	10: 10mm Pitch	Internal Control or Project Reference

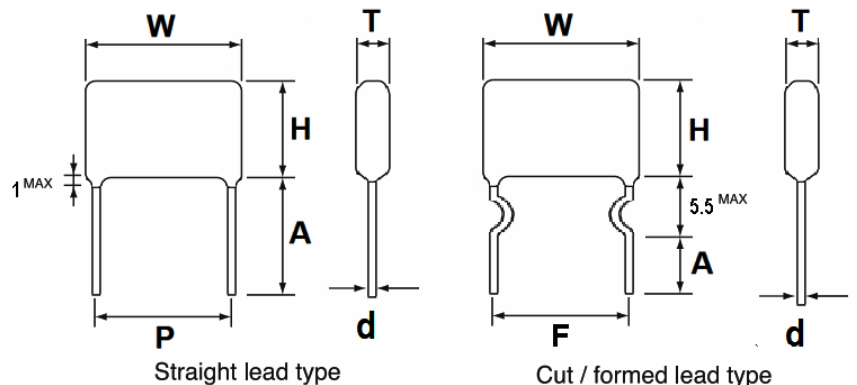
ELECTRICAL CHARACTERISTICS

Item	Description	
Capacitance Range	0.027 ~ 10.0 μF	
Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)	
Rated Voltage	450(2W), 520(2H), 630(2J) VDC	
Climatic Category	40/105/21	
Operating Temperature Range	-40°C~+105°C Derating ratio of rated voltage to +85 ~ +105°C: 1.25% per °C for rated voltage	
Dissipation Factor (tan δ)	≤ 0.1% at +20°C / 1KHz	
Insulation Resistance- Between Terminals, U _R >100V	C ≤ 0.33μF	≥ 25,000MΩ
	C > 0.33μF	≥ 7,500s (20°C, 100V, 1min)
Withstand Voltage- Between Terminals	1.6 x Rated Voltage for 5 sec.	

DIMENSION

P (mm)	d (mm)
10.0	0.6
15.0	0.8
20.0	0.8
22.5	0.8
27.5	0.8

- Note:
 1. WxHxT (mm) See the table below
 2. Standard lead length A: 15mm min.
 3. Contact Meritek for other available options for lead forming (F)



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DIMENSION

450VDC													
Cap(μF)	%	W	H	T	P	d	Cap(μF)	%	W	H	T	P	d
0.047	J,K,M	12.5	7.7	4.1	10.0	0.6	0.82	J,K,M	17.5	16.8	9.3	15.0	0.8
0.056	J,K,M	12.5	7.9	4.3	10.0	0.6	0.82	J,K,M	25.5	15.9	6.8	22.5	0.8
0.068	J,K,M	12.5	8.8	4.4	10.0	0.6	0.82	J,K,M	30.7	14.0	6.6	27.5	0.8
0.082	J,K,M	12.5	9.1	4.7	10.0	0.6	1.0	J,K,M	17.5	17.7	10.7	15.0	0.8
0.10	J,K,M	12.5	9.5	5.3	10.0	0.6	1.0	J,K,M	25.5	16.5	8.0	22.5	0.8
0.12	J,K,M	12.5	10.4	5.5	10.0	0.6	1.0	J,K,M	30.7	14.7	7.7	27.5	0.8
0.15	J,K,M	12.5	10.9	6.0	10.0	0.6	1.2	J,K,M	17.5	18.7	11.7	15.0	0.8
0.15	J,K,M	17.5	9.7	5.1	15.0	0.8	1.2	J,K,M	25.5	17.3	8.7	22.5	0.8
0.18	J,K,M	12.5	11.4	6.4	10.0	0.6	1.2	J,K,M	30.7	16.4	7.8	27.5	0.8
0.18	J,K,M	17.5	10.6	5.2	15.0	0.8	1.5	J,K,M	25.5	18.2	9.7	22.5	0.8
0.22	J,K,M	17.5	11.0	5.6	15.0	0.8	1.5	J,K,M	30.7	17.2	8.7	27.5	0.8
0.27	J,K,M	17.5	11.5	6.0	15.0	0.8	1.8	J,K,M	25.5	19.1	10.6	22.5	0.8
0.27	J,K,M	25.5	10.4	5.0	22.5	0.8	1.8	J,K,M	30.7	18.0	9.4	27.5	0.8
0.33	J,K,M	17.5	12.0	6.6	15.0	0.8	2.2	J,K,M	25.5	20.2	11.7	22.5	0.8
0.33	J,K,M	25.5	10.8	5.4	22.5	0.8	2.2	J,K,M	30.7	20.0	9.8	27.5	0.8
0.39	J,K,M	17.5	12.5	7.1	15.0	0.8	2.7	J,K,M	25.5	21.5	12.9	22.5	0.8
0.39	J,K,M	25.5	11.2	5.7	22.5	0.8	2.7	J,K,M	30.7	23.2	9.9	27.5	0.8
0.47	J,K,M	17.5	14.6	7.1	15.0	0.8	3.3	J,K,M	30.7	24.3	11.0	27.5	0.8
0.47	J,K,M	25.5	11.6	6.2	22.5	0.8	3.9	J,K,M	30.7	25.3	12.0	27.5	0.8
0.56	J,K,M	17.5	15.2	7.7	15.0	0.8	4.7	J,K,M	30.7	26.6	13.3	27.5	0.8
0.56	J,K,M	25.5	13.6	6.2	22.5	0.8	5.6	J,K,M	30.7	28.0	14.7	27.5	0.8
0.68	J,K,M	17.5	15.9	8.5	15.0	0.8	6.8	J,K,M	30.7	29.6	16.4	27.5	0.8
0.68	J,K,M	25.5	14.2	6.7	22.5	0.8	8.2	J,K,M	30.7	31.4	18.2	27.5	0.8
0.68	J,K,M	30.7	13.5	6.0	27.5	0.8	10	J,K,M	30.7	33.5	20.3	27.5	0.8

Unit: mm

Metallized Polypropylene Film Capacitor Epoxy Coated

PFDS Series

MERITEK

DIMENSION

520VDC													
Cap(μF)	%	W	H	T	P	d	Cap(μF)	%	W	H	T	P	d
0.039	J,K,M	12.5	7.8	4.1	10.0	0.6	0.68	J,K,M	17.5	16.9	9.4	15.0	0.8
0.047	J,K,M	12.5	8.0	4.4	10.0	0.6	0.68	J,K,M	25.5	16.0	6.9	22.5	0.8
0.056	J,K,M	12.5	8.8	4.4	10.0	0.6	0.68	J,K,M	30.7	12.6	7.2	27.5	0.8
0.068	J,K,M	12.5	9.2	4.7	10.0	0.6	0.82	J,K,M	17.5	17.8	10.3	15.0	0.8
0.082	J,K,M	12.5	9.5	5.1	10.0	0.6	0.82	J,K,M	25.5	16.6	7.6	22.5	0.8
0.10	J,K,M	12.5	10.5	5.6	10.0	0.6	0.82	J,K,M	30.7	13.8	7.8	27.5	0.8
0.10	J,K,M	17.5	9.4	4.8	15.0	0.8	1.0	J,K,M	17.5	18.9	11.9	15.0	0.8
0.12	J,K,M	12.5	10.9	6.0	10.0	0.6	1.0	J,K,M	25.5	17.4	8.9	22.5	0.8
0.12	J,K,M	17.5	9.7	5.1	15.0	0.8	1.0	J,K,M	30.7	14.5	9.1	27.5	0.8
0.15	J,K,M	12.5	11.5	6.6	10.0	0.6	1.2	J,K,M	25.5	18.2	9.7	22.5	0.8
0.15	J,K,M	17.5	10.1	5.5	15.0	0.8	1.2	J,K,M	30.7	16.2	9.2	27.5	0.8
0.18	J,K,M	12.5	12.0	7.1	10.0	0.6	1.5	J,K,M	25.5	20.3	10.2	22.5	0.8
0.18	J,K,M	17.5	10.5	5.9	15.0	0.8	1.5	J,K,M	30.7	17.2	10.2	27.5	0.8
0.22	J,K,M	17.5	11.0	6.4	15.0	0.8	1.8	J,K,M	25.5	21.3	11.2	22.5	0.8
0.27	J,K,M	17.5	12.1	6.6	15.0	0.8	1.8	J,K,M	30.7	19.0	10.5	27.5	0.8
0.33	J,K,M	17.5	12.6	7.2	15.0	0.8	2.2	J,K,M	25.5	22.5	12.4	22.5	0.8
0.33	J,K,M	25.5	11.3	5.9	22.5	0.8	2.2	J,K,M	30.7	21.1	11.0	27.5	0.8
0.39	J,K,M	17.5	14.7	7.2	15.0	0.8	2.7	J,K,M	30.7	24.4	11.1	27.5	0.8
0.39	J,K,M	25.5	11.7	6.3	22.5	0.8	3.3	J,K,M	30.7	25.6	12.4	27.5	0.8
0.47	J,K,M	17.5	15.4	7.9	15.0	0.8	3.9	J,K,M	30.7	26.8	13.6	27.5	0.8
0.47	J,K,M	25.5	13.8	6.3	22.5	0.8	4.7	J,K,M	30.7	28.3	15.0	27.5	0.8
0.47	J,K,M	30.7	11.6	6.2	27.5	0.8	5.6	J,K,M	30.7	29.8	16.6	27.5	0.8
0.56	J,K,M	17.5	16.1	8.6	15.0	0.8	6.8	J,K,M	30.7	31.7	18.4	27.5	0.8
0.56	J,K,M	25.5	14.3	6.8	22.5	0.8	8.2	J,K,M	30.7	33.7	20.5	27.5	0.8
0.56	J,K,M	30.7	12.1	6.6	27.5	0.8	--	--	--	--	--	--	--

Unit: mm

Metallized Polypropylene Film Capacitor Epoxy Coated

PFDS Series

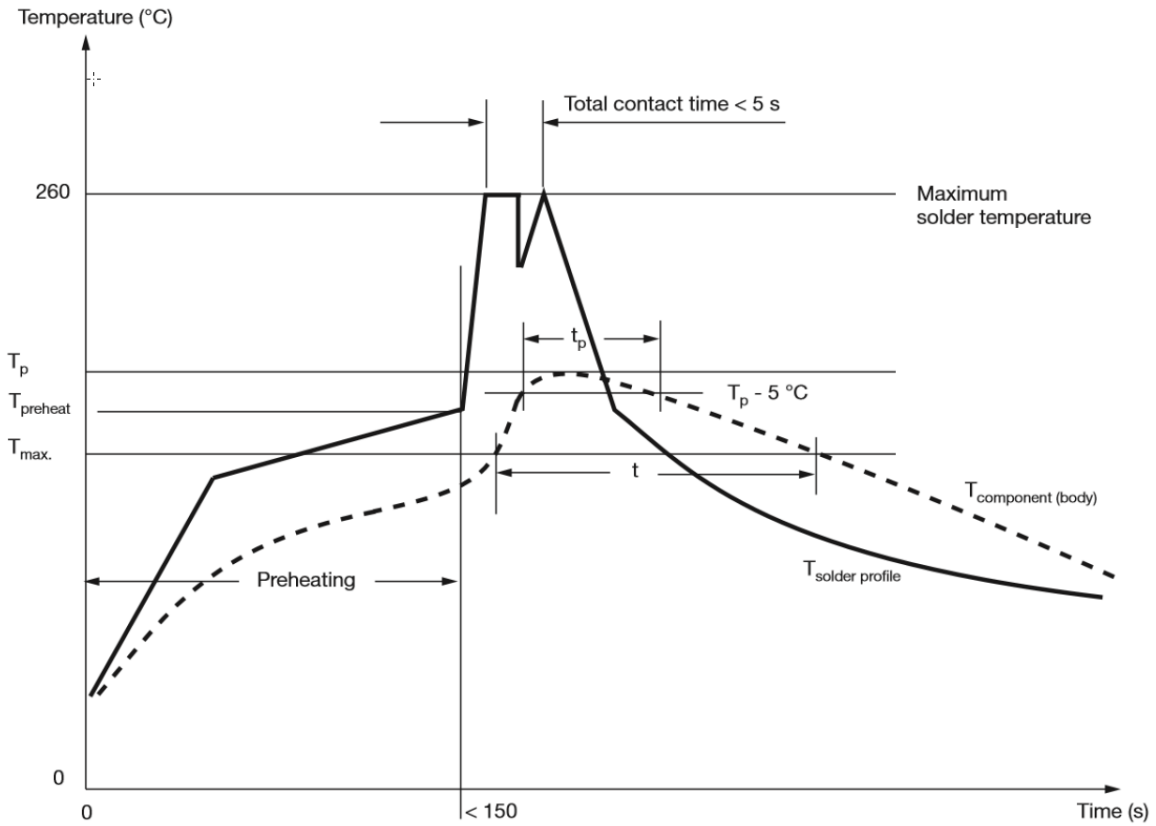
MERITEK

DIMENSION

630VDC													
Cap(μF)	%	W	H	T	P	d	Cap(μF)	%	W	H	T	P	d
0.027	J,K,M	12.5	7.8	4.2	10.0	0.6	0.47	J,K,M	17.5	17.0	9.5	15.0	0.8
0.033	J,K,M	12.5	8.1	4.5	10.0	0.6	0.47	J,K,M	25.5	15.0	7.5	22.5	0.8
0.039	J,K,M	12.5	8.9	4.5	10.0	0.6	0.47	J,K,M	30.7	12.7	7.3	27.5	0.8
0.047	J,K,M	12.5	9.2	4.8	10.0	0.6	0.56	J,K,M	17.5	17.8	10.3	15.0	0.8
0.056	J,K,M	12.5	9.6	5.1	10.0	0.6	0.56	J,K,M	25.5	16.7	7.6	22.5	0.8
0.068	J,K,M	12.5	10.5	5.3	10.0	0.6	0.56	J,K,M	30.7	13.8	7.9	27.5	0.8
0.068	J,K,M	17.5	9.4	4.5	15.0	0.8	0.68	J,K,M	17.5	18.9	11.4	15.0	0.8
0.082	J,K,M	12.5	10.9	5.7	10.0	0.6	0.68	J,K,M	25.5	17.4	8.3	22.5	0.8
0.082	J,K,M	17.5	9.7	4.8	15.0	0.8	0.68	J,K,M	30.7	15.5	8.0	27.5	0.8
0.10	J,K,M	12.5	11.4	6.5	10.0	0.6	0.82	J,K,M	17.5	20.9	11.8	15.0	0.8
0.10	J,K,M	17.5	10.7	5.3	15.0	0.8	0.82	J,K,M	25.5	18.2	9.2	22.5	0.8
0.12	J,K,M	12.5	12.0	7.0	10.0	0.6	0.82	J,K,M	30.7	16.2	8.7	27.5	0.8
0.12	J,K,M	17.5	11.0	5.6	15.0	0.8	1.0	J,K,M	17.5	22.1	13.6	15.0	0.8
0.15	J,K,M	12.5	12.7	7.8	10.0	0.6	1.0	J,K,M	25.5	19.2	10.6	22.5	0.8
0.15	J,K,M	17.5	11.6	6.1	15.0	0.8	1.0	J,K,M	30.7	18.0	9.7	27.5	0.8
0.18	J,K,M	17.5	12.0	6.6	15.0	0.8	1.2	J,K,M	25.5	20.2	11.6	22.5	0.8
0.22	J,K,M	17.5	14.1	6.7	15.0	0.8	1.2	J,K,M	30.7	19.9	9.8	27.5	0.8
0.22	J,K,M	25.5	11.3	5.9	22.5	0.8	1.5	J,K,M	25.5	22.5	12.4	22.5	0.8
0.27	J,K,M	17.5	14.8	7.3	15.0	0.8	1.5	J,K,M	30.7	21.1	11.0	27.5	0.8
0.27	J,K,M	25.5	11.8	6.4	22.5	0.8	1.8	J,K,M	25.5	23.7	13.6	22.5	0.8
0.27	J,K,M	30.7	11.2	5.8	27.5	0.8	1.8	J,K,M	30.7	24.2	11.9	27.5	0.8
0.33	J,K,M	17.5	15.5	8.0	15.0	0.8	2.2	J,K,M	25.5	25.2	15.1	22.5	0.8
0.33	J,K,M	25.5	12.3	6.9	22.5	0.8	2.2	J,K,M	30.7	25.5	12.2	27.5	0.8
0.33	J,K,M	30.7	11.7	6.3	27.5	0.8	2.7	J,K,M	30.7	26.9	13.6	27.5	0.8
0.39	J,K,M	17.5	16.1	8.7	15.0	0.8	3.3	J,K,M	30.7	28.5	15.2	27.5	0.8
0.39	J,K,M	25.5	14.4	6.9	22.5	0.8	3.9	J,K,M	30.7	29.9	16.7	27.5	0.8
0.39	J,K,M	30.7	12.1	6.7	27.5	0.8	4.7	J,K,M	30.7	31.7	18.5	27.5	0.8
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Unit: mm

RECOMMENDED SOLDERING PROFILE - Wave Soldering



The PSL (Process Sensitivity Level) is classified according JEDEC standard J-STD-075 "Classification of Non-IC Electronic Components for Assembly Processes" and summarized in following tables per product family and pitch size of the component:

Series	Pitch Size							
	5mm	7.5mm	10mm	15mm	20/22.5mm	27.5mm	31mm	37.5mm
PFDS	--	--	(2)(5)	(1)(6)	(1)(6)	(1)(6)	--	--

Notes

- (1) No risk
- (2) Risk for parameter change if PSL is not strictly followed
- (3) Risk for product damage if PSL is not strictly followed
- (4) Temperature is measured at the body top and must be kept as follows:
 - a. During preheating: $T_{max} \leq 100 \text{ } ^\circ\text{C}$
 - b. During soldering: $T_p \leq 110 \text{ } ^\circ\text{C}$, $t_p \leq 20 \text{ s}$, $t \leq 30 \text{ s}$
- (5) Temperature is measured at the body top and must be kept as follows:
 - c. During preheating: $T_{max} \leq 100 \text{ } ^\circ\text{C}$
 - d. During soldering: $T_p \leq 120 \text{ } ^\circ\text{C}$, $t_p \leq 20 \text{ s}$, $t \leq 30 \text{ s}$
- (6) The component has a preheat limitation of $150 \text{ } ^\circ\text{C}$

*Specifications subject to change without notice.