

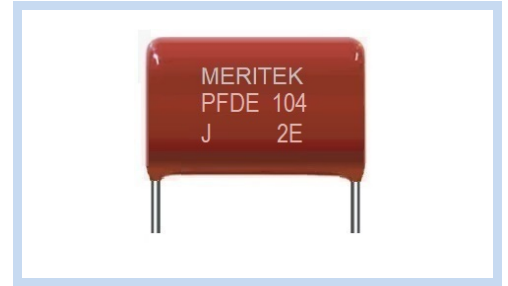
# Metallized Polyester Film Capacitor Epoxy Coated

PFDE Series

**MERITEK**

## FEATURES

- Operating temperature: -40°C ~ +105°C
- Non-inductive Wound Construction, Segmented Design
- Reference Standard: IEC 60384-2
- Flame Retardant Epoxy Resin Coating UL94V-0



## PART NUMBERING SYSTEM

PFDE   104   J   2E   75  
(1)   (2)   (3)   (4)   (5)



No	item	Code	Description	
(1)	Meritek Series	PFDE	Metallized Polyester 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	2E	2E: 250VDC	DC Voltage Code
(5)	Internal Code	75	75: 7.5mm Pitch	Internal Control or Project Reference

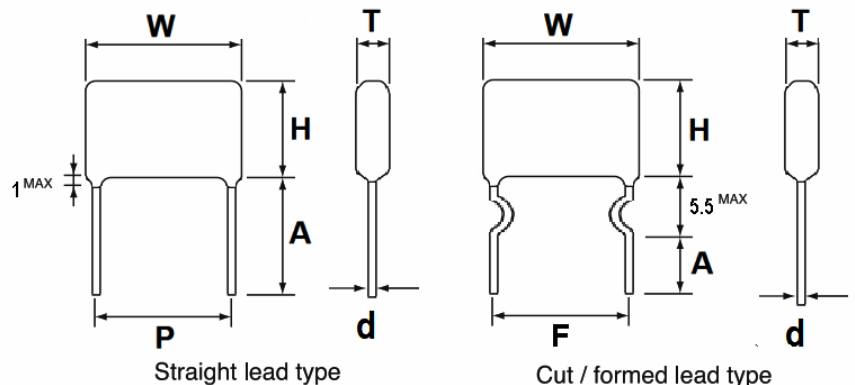
## ELECTRICAL CHARACTERISTICS

Item	Description	
Capacitance Range	0.01~10 μF	
Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)	
Rated Voltage	250(2E), 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 <sub>R</sub> >100V	C ≤ 0.33μF	≥ 7,500MΩ
	C > 0.33μF	≥ 2,500s (20°C, 100V,1min)
Withstand Voltage- Between Terminals	1.6 x Rated Voltage for 5 sec.	

## DIMENSION

P (mm)	d (mm)
7.5	0.6
10.0	0.6
15.0	0.8
22.5	0.8
25.0	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

250VDC							450VDC						
Cap(μF)	%	W	H	T	P	d	Cap(μF)	%	W	H	T	P	d
0.10	J,K,M	10.0	7.7	4.0	7.5	0.6	0.033	J,K,M	10.0	7.1	4.0	7.5	0.6
0.15	J,K,M	10.0	8.3	4.5	7.5	0.6	0.047	J,K,M	10.0	7.1	4.0	7.5	0.6
0.22	J,K,M	10.0	9.9	4.9	7.5	0.6	0.068	J,K,M	10.0	8.0	4.4	7.5	0.6
0.33	J,K,M	10.0	10.4	5.7	7.5	0.6	0.10	J,K,M	10.0	9.7	5.1	7.5	0.6
0.33	J,K,M	12.5	9.0	5.2	10.0	0.6	0.10	J,K,M	12.5	9.1	4.4	10.0	0.6
0.47	J,K,M	10.0	11.8	6.3	7.5	0.6	0.15	J,K,M	10.0	10.6	6.0	7.5	0.6
0.47	J,K,M	12.5	10.8	5.4	10.0	0.6	0.15	J,K,M	12.5	9.7	5.1	10.0	0.6
0.47	J,K,M	17.5	9.3	4.7	15.0	0.8	0.22	J,K,M	10.0	12.1	6.7	7.5	0.6
0.68	J,K,M	10.0	13.9	6.9	7.5	0.6	0.22	J,K,M	12.5	11.1	5.7	10.0	0.6
0.68	J,K,M	12.5	11.7	6.3	10.0	0.6	0.22	J,K,M	17.5	10.3	4.9	15.0	0.8
0.68	J,K,M	17.5	10.0	5.4	15.0	0.8	0.33	J,K,M	12.5	13.2	6.2	10.0	0.6
1.00	J,K,M	10.0	15.3	8.4	7.5	0.6	0.33	J,K,M	17.5	11.1	5.7	15.0	0.8
1.00	J,K,M	12.5	14.4	7.4	10.0	0.6	0.47	J,K,M	12.5	15.4	6.8	10.0	0.6
1.00	J,K,M	17.5	12.0	6.5	15.0	0.8	0.47	J,K,M	17.5	13.1	6.1	15.0	0.8
1.00	J,K,M	25.5	10.9	5.5	22.5	0.8	0.47	J,K,M	25.5	11.3	5.9	22.5	0.8
1.50	J,K,M	12.5	16.9	8.4	10.0	0.6	0.68	J,K,M	12.5	16.8	8.2	10.0	0.8
1.50	J,K,M	17.5	14.2	7.2	15.0	0.8	0.68	J,K,M	17.5	15.3	6.8	15.0	0.8
1.50	J,K,M	25.5	12.9	5.9	22.5	0.8	0.68	J,K,M	25.5	13.3	6.3	22.5	0.8
2.20	J,K,M	12.5	19.7	9.5	10.0	0.6	1.00	J,K,M	12.5	19.6	9.4	10.0	0.8
2.20	J,K,M	17.5	16.6	8.0	15.0	0.8	1.00	J,K,M	17.5	17.2	8.7	15.0	0.8
2.20	J,K,M	25.5	13.9	6.9	22.5	0.8	1.00	J,K,M	25.5	14.4	7.4	22.5	0.8
3.30	J,K,M	17.5	19.3	9.2	15.0	0.8	1.50	J,K,M	17.5	20.1	10.0	15.0	0.8
3.30	J,K,M	25.5	16.4	7.8	22.5	0.8	1.50	J,K,M	25.5	16.9	8.3	22.5	0.8
4.70	J,K,M	17.5	21.2	11.0	15.0	0.8	2.20	J,K,M	17.5	22.3	12.2	15.0	0.8
4.70	J,K,M	25.5	18.8	8.7	22.5	0.8	2.20	J,K,M	25.5	19.6	9.5	22.5	0.8
6.80	J,K,M	25.5	20.6	10.5	22.5	0.8	3.30	J,K,M	25.5	21.8	11.7	22.5	0.8
10.00	J,K,M	25.5	23.0	12.9	22.5	0.8	--	--	--	--	--	--	--

Unit: mm

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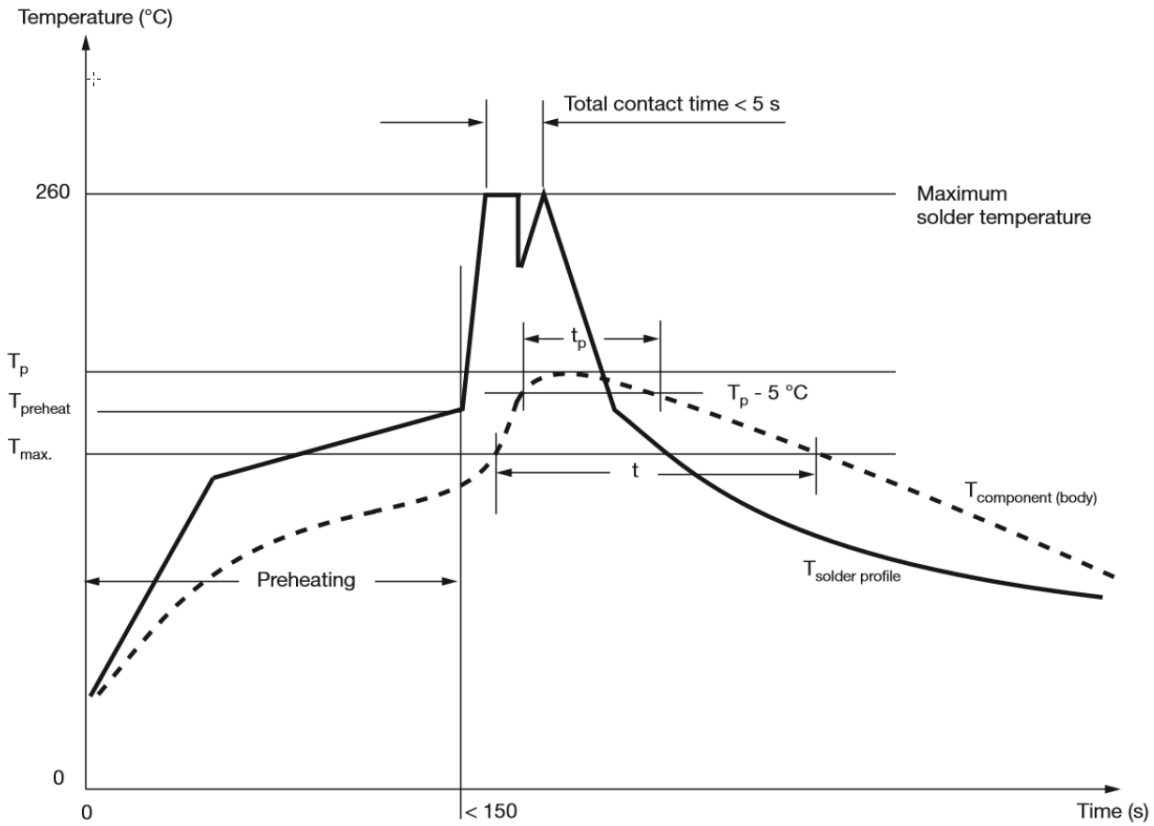
**MERITEK**

## DIMENSION

520VDC							630VDC						
Cap(μF)	%	W	H	T	P	d	Cap(μF)	%	W	H	T	P	d
0.022	J,K,M	10.0	7.5	4.0	7.5	0.6	0.010	J,K,M	10.0	7.6	4.1	7.5	0.6
0.033	J,K,M	10.0	8.5	4.4	7.5	0.6	0.015	J,K,M	10.0	7.6	4.1	7.5	0.6
0.047	J,K,M	10.0	9.6	4.7	7.5	0.6	0.022	J,K,M	10.0	8.1	4.6	7.5	0.6
0.068	J,K,M	10.0	10.4	5.4	7.5	0.6	0.033	J,K,M	10.0	9.2	5.1	7.5	0.6
0.068	J,K,M	12.5	9.6	4.7	10.0	0.6	0.047	J,K,M	10.0	10.5	5.5	7.5	0.6
0.10	J,K,M	12.5	10.9	5.5	10.0	0.6	0.047	J,K,M	12.5	9.6	4.6	10.0	0.6
0.10	J,K,M	17.8	9.4	4.7	15.0	0.8	0.068	J,K,M	10.0	11.9	6.2	7.5	0.6
0.15	J,K,M	12.5	11.9	6.5	10.0	0.6	0.068	J,K,M	12.5	10.3	5.3	10.0	0.6
0.15	J,K,M	17.8	10.2	5.5	15.0	0.8	0.10	J,K,M	10.0	13.1	7.7	7.5	0.6
0.22	J,K,M	12.5	14.1	7.1	10.0	0.6	0.10	J,K,M	12.5	11.2	6.5	10.0	0.6
0.22	J,K,M	17.8	11.6	6.1	15.0	0.8	0.10	J,K,M	17.8	10.6	5.1	15.0	0.8
0.33	J,K,M	12.5	15.6	8.6	10.0	0.6	0.15	J,K,M	12.5	13.9	6.9	10.0	0.6
0.33	J,K,M	17.8	13.7	6.7	15.0	0.8	0.15	J,K,M	17.8	12.5	5.5	15.0	0.8
0.33	J,K,M	25.5	12.4	5.4	22.5	0.8	0.22	J,K,M	12.5	15.3	8.3	10.0	0.6
0.47	J,K,M	17.8	14.9	7.9	15.0	0.8	0.22	J,K,M	17.8	13.5	6.5	15.0	0.8
0.47	J,K,M	25.5	13.3	6.3	22.5	0.8	0.22	J,K,M	25.5	11.2	5.7	22.5	0.8
0.68	J,K,M	17.8	17.5	8.9	15.0	0.8	0.33	J,K,M	17.8	14.8	7.8	15.0	0.8
0.68	J,K,M	25.5	15.5	7.0	22.5	0.8	0.33	J,K,M	25.5	12.2	6.7	22.5	0.8
1.0	J,K,M	17.8	20.9	10.7	15.0	0.8	0.47	J,K,M	17.8	16.3	9.2	15.0	0.8
1.0	J,K,M	25.5	18.5	8.4	22.5	0.8	0.47	J,K,M	25.5	14.3	7.3	22.5	0.8
1.5	J,K,M	17.8	23.4	13.2	15.0	0.8	0.68	J,K,M	17.8	19.1	10.4	15.0	0.8
1.5	J,K,M	25.5	20.4	10.3	22.5	0.8	0.68	J,K,M	25.5	15.7	8.7	22.5	0.8
2.2	J,K,M	25.5	22.6	12.5	22.5	0.8	1.0	J,K,M	17.8	22.8	12.6	15.0	0.8
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--	--	--	--	--	--	--	1.5	J,K,M	17.8	25.8	15.6	15.0	0.8
--	--	--	--	--	--	--	1.5	J,K,M	25.5	22.2	12.1	22.5	0.8
--	--	--	--	--	--	--	2.2	J,K,M	25.5	24.9	14.8	22.5	0.8

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	22.5mm	27.5mm	31.5mm	37.5mm
PFDE	--	(2)(4)	(1)(3)	(1)(3)	(1)(3)	--	--	--

**Notes**

- (1) No risk
- (2) Risk for parameter change if PSL is not strictly followed
- (3) The component has a preheat limitation of 150°C
- (4) Temperature is measured at the body top and must be kept as follows:
  - a. During preheating:  $T_{max} \leq 125 \text{ } ^\circ\text{C}$
  - b. During soldering:  $T_p \leq 135 \text{ } ^\circ\text{C}$ ,  $t_p \leq 30 \text{ s}$ ,  $t \leq 50 \text{ s}$

\*Specifications subject to change without notice.