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EIA STANDARD

Film-Paper, Film Dielectric Capacitors for 50/60 Hz Voltage Doubler Power Supplies

EIA-479-A

(Revision of EIA-479)

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ELECTRONIC INDUSTRIES ASSOCIATION
ENGINEERING DEPARTMENT



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FILM-PAPER, FILM DIELECTRIC CAPACITORS
FOR
50/60 Hz VOLTAGE DOUBLER POWER SUPPLIES

CONTENTS

<u>Section</u>	<u>Page</u>
1. Scope	1
2. Definitions	1
3. Standard Designations	2
4. Applicable Documents	5
5. Standard Test Conditions	5
6. Quality Assurance	5
7. Visual and Mechanical Examination	7
8. Marking	7
9. Dielectric Withstanding Voltage Test	8
10. Capacitance Test	8
11. Dissipation Factor Test	8
12. Seal Test	8
13. Corona Test	8
14. Vibration Test	9
15. Salt Spray Test	9
16. Protective Device	9
17. Solderability	9
18. Terminal Strength	9
19. Humidity Test	9
20. Capacitance Change with Temperature	10
21. Accelerated Life Test	10
22. Application Notes	11

EIA-479-A

FILM-PAPER, FILM DIELECTRIC CAPACITORS
FOR
50/60 Hz VOLTAGE DOUBLER POWER SUPPLIES

CONTENTS (continued)

<u>Reference</u>	<u>Section</u>	<u>Page</u>
APPENDIX A	Typical Terminal Configuration	14
APPENDIX B	Typical Capacitor Ratings Used for Microwave Oven Power Supplies	15
APPENDIX C	Determination of Capacitor Voltage Rating	16
APPENDIX D	Case Dimension Details	17
APPENDIX E	Mounting Bracket Details	18

FILM-PAPER, FILM, DIELECTRIC CAPACITORS
FOR
50/60 Hz VOLTAGE DOUBLER POWER SUPPLIES

(From EIA Standard Proposal No. 2814, formulated under the cognizance of EIA P-2.2 Subcommittee on Plastic and Paper Dielectric Capacitors)

1. SCOPE

This standard describes the requirements for film-paper and film dielectric capacitors impregnated and/or filled with non-PCB oil. They are intended for use in half wave or full wave voltage doubler power supplies of microwave ovens or other equipment operated from 50-60 Hz power lines.

2. DEFINITIONS

2.1 Rated Voltage

Rated voltage is the maximum steady-state root-mean-square (rms) operating voltage and is equal to the:

$$\text{peak-to-peak voltage} / (2 \cdot (2)^{.5})$$

Rated voltage shall not include the dc component of an application.

Peak-to-peak voltage is the maximum total change in voltage applied between the capacitor terminal during repetitive cycles.

2.2 Rated Case Temperatures

Rated case temperature is the maximum allowable hot spot developed at any point on the case surface.

2.3 Service Life Objective

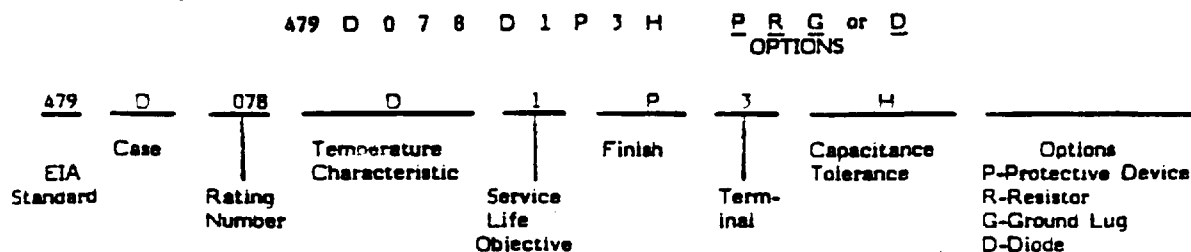
The service life objective is the design life capability as determined by accelerated life tests and/or data from field performance. (See 22.1).

EIA-479-A

Page 2

3. STANDARD DESIGNATION

- 3.1 EIA Standard designation shall consist of eight constituent parts as illustrated below and options indicated below:



- 3.2 Case type shall be identified by a single letter. All cases shall be of deep drawn or extruded construction with double-rolled cover seams.

NOMINAL DIMENSION OVER SEAM COVER

Case	Inches	Millimeters	Shape
A	2.16 x 1.31	54.9 x 33.3	(1 - 1/4") Flat Oval
B	2.69 x 1.56	68.3 x 39.6	(1 - 1/2") Flat Oval
C	2.91 x 1.91	73.9 x 48.5	(1 - 3/4") Flat Oval
D	3.66 x 1.97	93.0 x 50.0	(2") Flat Oval

- 3.3 Rating numbers are noted on a parts list sheet in Appendix B, for each capacitance and voltage rating. This is a three digit sequential nonsignificant number that has been assigned by EIA.
- 3.4 Characteristic shall be identified by a single letter to denote the rated case temperature range of the capacitor as shown below:

Characteristic	Case Operating Temperature Range	Storage Temperature Range
M	0 to +60 degrees C	-55 to +60 degrees C
D	0 to +70 degrees C	-55 to +70 degrees C
P	0 to +85 degrees C	-55 to +85 degrees C