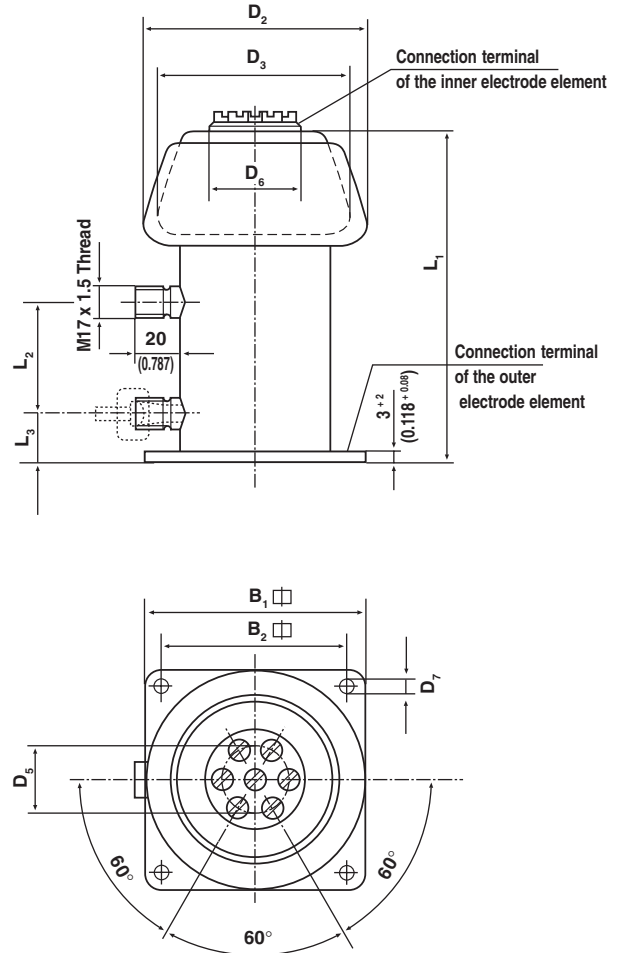
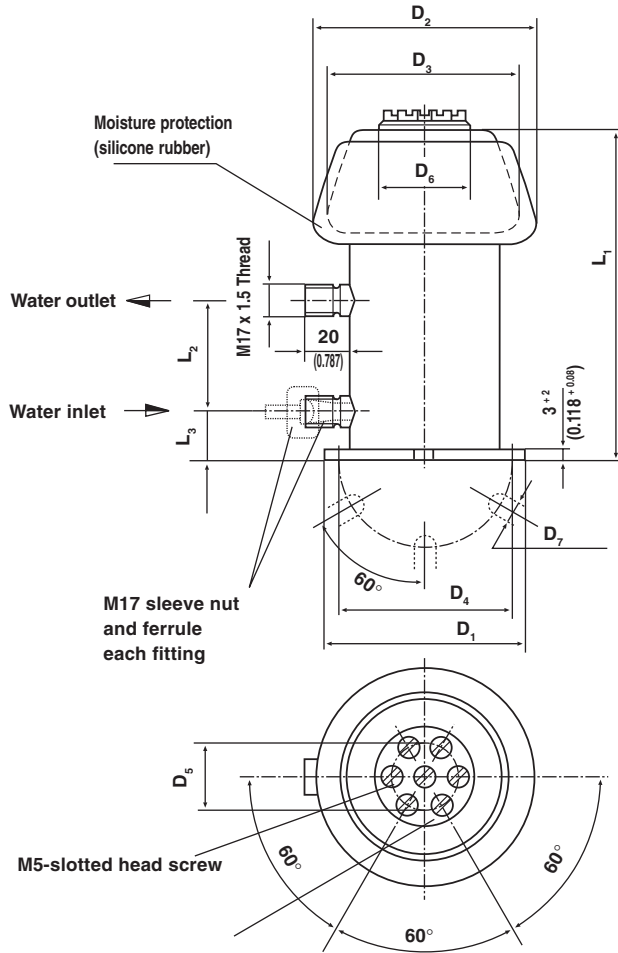


## Watercooled Power RF-Capacitors (External Cooling)

**TWX 12 KV<sub>p</sub> to 20 KV<sub>p</sub>**

**TWXF 10 KV<sub>p</sub> to 25 KV<sub>p</sub>**



• Dimensions in millimeters (inches)

**MATERIAL:**

Capacitor elements made from Class 1 ceramic dielectric with noble metal electrodes.  
 Outer electrode surface completely protected with a glass passivation layer.  
 Connection terminal of the inner electrode and outer electrode's covering copper can be made from copper/brass, silver plated.

**FINISH:**

Outer electrode's covering copper can be completely lacquered (except bottom plate).  
 Contoured rim glazed. TWXF model only has additional moisture protection (silicone rubber) of the rim.




**MARKING:**

Type designator, Capacitance value and tolerance, Rated voltage (peak value), Production date code, Ceramic material code, DRALORIC Logo, Serial number.

**ACCESSORIES ADDED:**

Contact plate (silvered copper) and seven metric screws for contacting the inner electrode element.  
 Ferrules and sleeve nuts (M17 thread) for mounting the water cooling system with 8 mm copper-tube.

<b>ORDERING INFORMATION</b>				
MODEL	RATED VOLTAGE	CAPACITANCE VALUE	TOLERANCE	CERAMIC
TWXF 135285	20 KV <sub>p</sub>	5000 pF	± 20 %	R 85

MODEL	RATED VOLTAGE [KV <sub>p</sub> ]	CAPACITANCE VALUE [pF]	CERAMIC	RATED POWER [KVA <sub>r</sub> ]	RATED CURRENT [A <sub>RMS</sub> ]	MIN. WATER FLOW RATE PER MINUTE		PERMISSIBLE INSTALLATION position (1)			DERATING DIAGRAM (2) NO.
						[Liter]	[US-gal.]				
TWX (F) 095162	14	100	R7	1100	150	1.0	0.27	x	x	x	1
TWX (F) 095162	14	200	R7	1500	150	1.0	0.27	x	x	x	2
TWX (F) 095162	14	400	R16	1500	150	1.0	0.27	x	x	x	3
TWX (F) 095187	14	1000	R42	1500	150	1.0	0.27	x	x	x	4
TWX (F) 095162	14	1500	R85	1000	150	1.0	0.27	x	x	x	5
TWX (F) 095162	14	2000	R85	1500	150	1.0	0.27	x	x	x	6
TWX (F) 095162	14	2500	R85	1500	150	1.0	0.27	x	x	x	7
TWXF 135242	25	2500	R85	2500	250	1.8	0.49	x	x	x	8
TWX (F) 135242	20	3000	R85	2000	200	1.4	0.38	x	x	x	9
TWX (F) 135218	16	4000	R85	2500	250	1.8	0.49	x	x	x	10
TWX (F) 095220	12	5000	R85	1275	150	1.0	0.27	x	x	x	11
TWX (F) 110250	14	4700/5000	R85	2000	200	1.4	0.38	x	x	x	12
TWX (F) 135250	16	5000	R85	2830	250	2.0	0.54	x	x	x	13
TWXF 135285	20	5000	R85	3000	250	2.1	0.57	x	x	x	14
TWXF 135373	25	5000	R85	3200	250	2.3	0.62	x	x	x	15
TWXF 135272	16	6000	R85	2830	250	2.0	0.54	x	x	x	16
TWXF 165278	20	6000	R85	3000	270	2.1	0.57	x			17
TWXF 165270	14	7500	R85	3000	300	2.1	0.57	x		x	18
TWXF 125300	14	7600	R85	2500	250	2.0	0.54	x	x	x	19
TWXF 165270	16	7600	R85	2830	250	2.0	0.54	x		x	20
TWXF 125420	18	7600	R85	2500	250	2.0	0.54	x		x	21
TWXF 165336	20	7600	R85	3200	270	2.3	0.62	x		x	22
TWXF 165336	22.5	7500	R85	4000	350	2.9	0.80	x		x	23
TWXF 125300	10	10 000	R85	2000	280	1.4	0.38	x	x	x	24
TWXF 125405	14	10 000	R85	2800	290	2.0	0.54	x			25
TWXF 165335	16	10 000	R85	3395	300	2.5	0.70	x		x	26
TWXF 165420	18	10 000	R85	2500	250	2.0	0.54	x		x	27

MODEL	FIG.	MECHANICAL DIMENSIONS IN MM (INCH)											
		D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	D <sub>2</sub> TWX	D <sub>3</sub> TWXF	D <sub>4</sub>	D <sub>5</sub>	D <sub>6</sub>	B <sub>1</sub>	B <sub>2</sub>	L <sub>3</sub>	D <sub>7</sub>
TWX (F) 095162	1	95 (3.740)	162 (6.378)	55(2.165)	94 (3.701)		85 (3.346)						5.5
TWX (F) 095187	1	95 (3.740)	187 (7.362)	80 (3.150)	94 (3.701)	110 (4.331)	85 (3.346)		40 (1.575)			18 (0.709)	(0.217)
TWX (F) 095220	1	95 (3.740)	220 (8.661)	115 (4.528)	94 (3.701)	108 (4.252)	85 (3.346)		45 (1.772)				
TWX (F) 110250	1	100(4.331)	248 (9.764)	115 (4.528)	108 (4.252)	125 (4.921)	98 (3.858)						
TWXF 125300	2	-	303 (11.929)	180 (7.087)	-	-	-						
TWXF 125405	2	-	405 (15.945)	280 (11.024)	-	-	-		127 (5.000)	98 (3.858)	30 (1.181)	9.5 (0.374)	
TWXF 125420	2	-	420 (16.535)	280 (11.024)	-	-	30 (1.181)						
TWXF 135218	1	135 (5.315)	218 (8.583)	108 (4.252)	-	-	122 (4.803)	(1.181)					
TWX (F) 135242	1	135 (5.315)	242 (9.528)	108 (4.252)	135 (5.315)	148 (5.827)	122 (4.803)		50 (1.969)				
TWXF 135250	1	135 (5.315)	250 (9.843)	134 (5.276)	-	-	122 (4.803)				22 (0.709)	6.5 (0.217)	
TWXF 135272	1	135 (5.315)	272 (10.709)	134 (5.276)	-	-	122 (4.803)						
TWXF 135285	1	135 (5.315)	285 (11.229)	134 (5.276)	-	-	122 (4.803)						
TWXF 135373	1	135 (5.315)	373 (14.685)	216 (8.504)	-	-	122 (4.803)						
TWXF 165270(3)	1	165 (6.596)	270 (10.630)	134 (5.276)	-	-	146 (5.748)						
TWXF 165270(4)	2	-	270 (10.630)	140 (5.512)	-	-	-						
TWXF 165278	2	-	278 (10.945)	136 (5.354)	-	-	-						
TWXF 165335	2	-	335 (13.189)	208 (8.819)	-	170 (6.693)	-	45 (1.772)	75 (2.953)	165 (6.496)	135 (5.315)	30 (1.181)	85 (0.374)
TWXF 165336	2	-	336 (13.228)	194 (7.638)	-	-	-						
TWXF 165336	2	-	380 (14.961)	236 (9.291)	-	-	-						
TWXF 165420	2	-	420 (16.535)	280 (11.024)	-	-	-						

1) TWX model (without silicone moisture protection): Only vertical, umbrella-up position permitted.

2) Derating diagrams see following pages

3) TWXF 165270 14 KV<sub>p</sub> 7500 pF

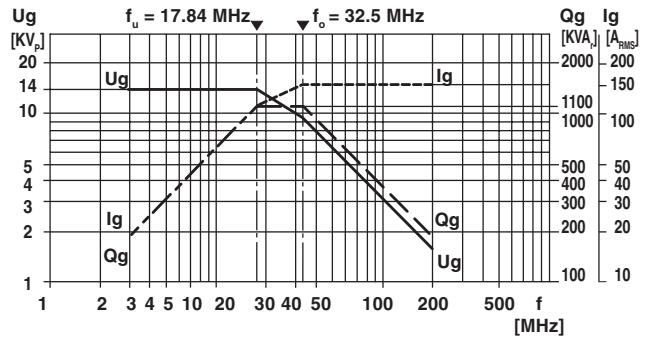
4) TWXF 165270 16 KV<sub>p</sub> 7600 pF

**CAPACITANCE TOLERANCE: ± 20 %**

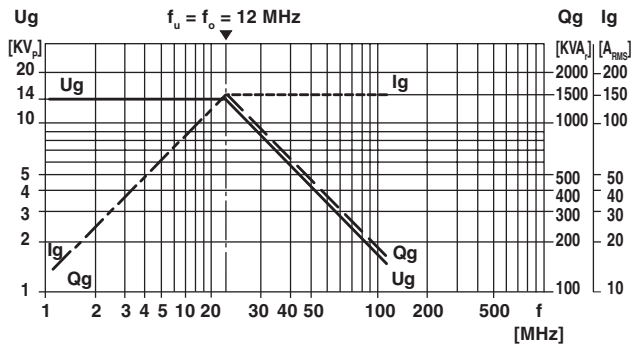
Other capacitance tolerances are available on request.

**DERATING DIAGRAMS**

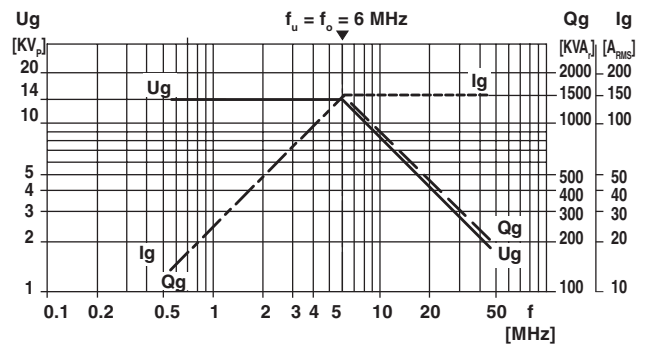
**1 TWX (F) 095162 14 KV<sub>p</sub>, 100 pF R7**



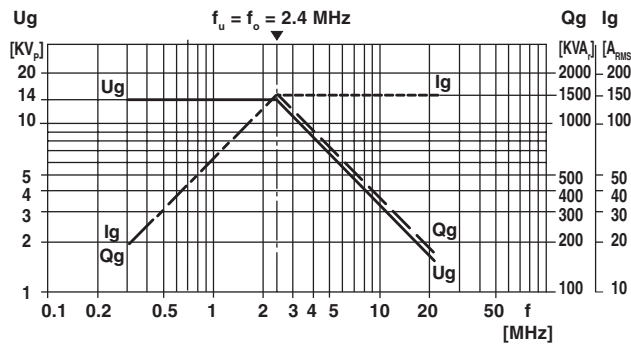
**2 TWX (F) 095162 14 KV<sub>p</sub>, 200 pF R7**



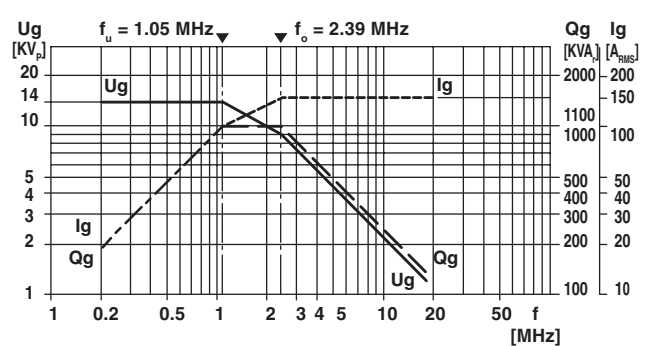
**3 TWX (F) 095162 14 KV<sub>p</sub>, 400 pF R16**



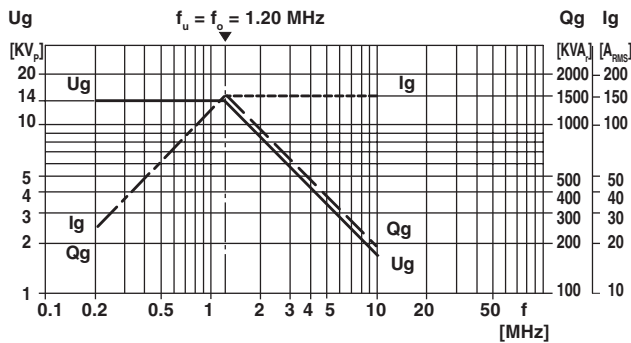
**4 TWX (F) 095162 14 KV<sub>p</sub>, 1000 pF R42**



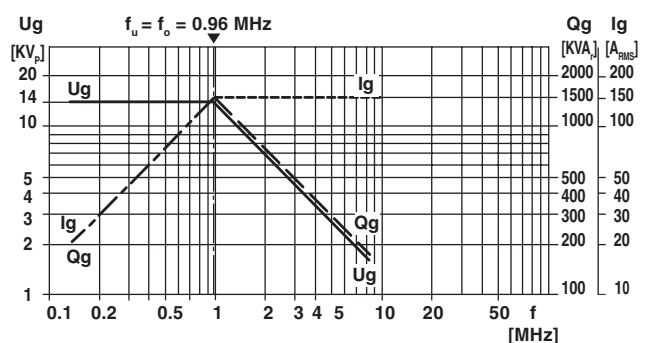
**5 TWX (F) 095162 14 KV<sub>p</sub>, 1500 pF R85**



**6 TWX (F) 095162 14 KV<sub>p</sub>, 2000 pF R85**

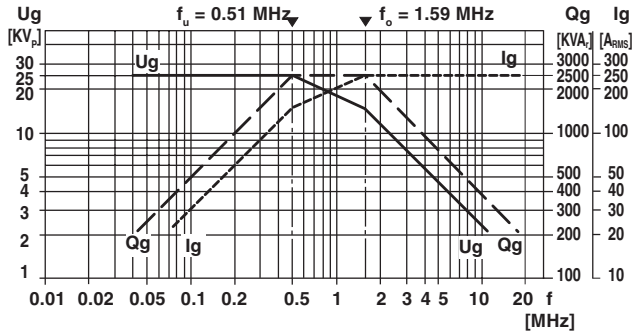


**7 TWX (F) 095162 14 KV<sub>p</sub>, 2500 pF R85**

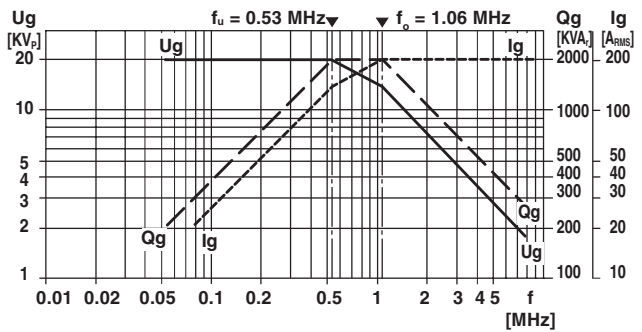


**DERATING DIAGRAMS**

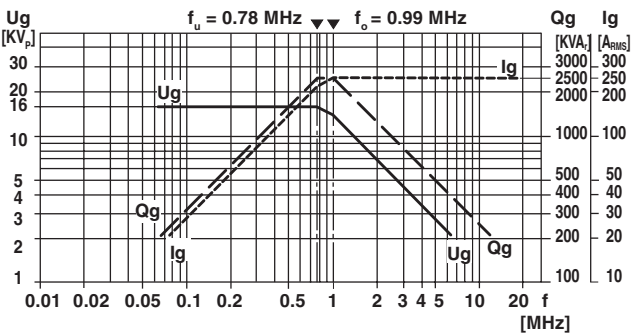
**8 TWXF 135242 25 KV<sub>p</sub>, 2500 pF R85**



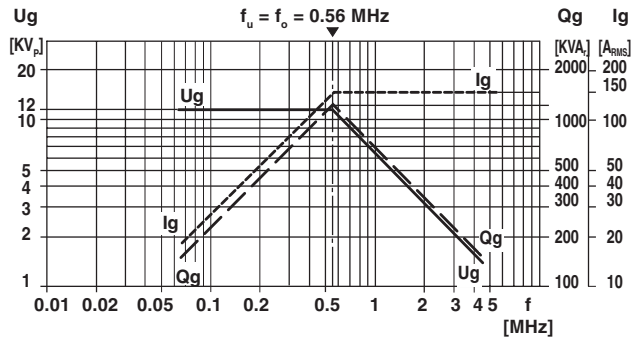
**9 TWXF 135242 20 KV<sub>p</sub>, 3000 pF R85**



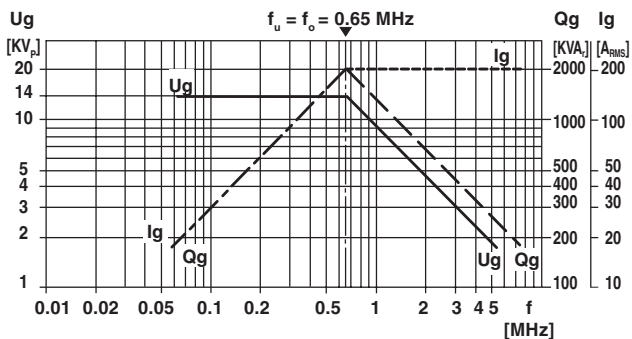
**10 TWXF 135218 16 KV<sub>p</sub>, 4000 pF R85**



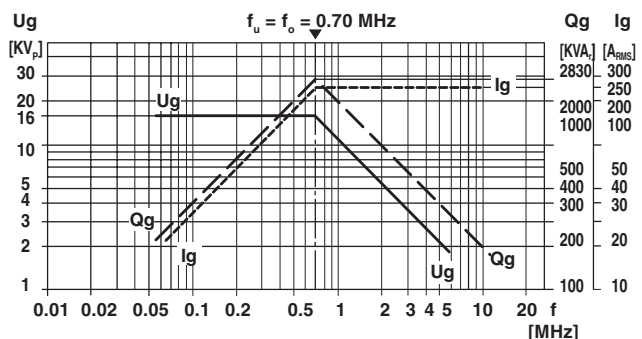
**11 TWX (F) 095220 12 KV<sub>p</sub>, 5000 pF R85**



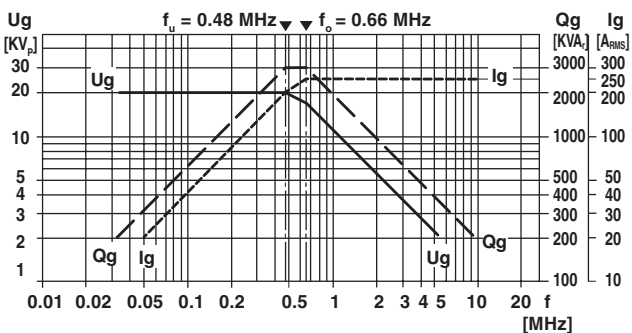
**12 TWX (F) 110250 14 KV<sub>p</sub>, 5000 pF R85**



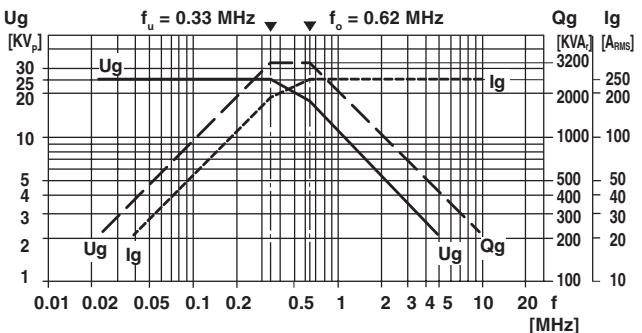
**13 TWXF 135250 16 KV<sub>p</sub>, 5000 pF R85**



**14 TWXF 135285 20 KV<sub>p</sub>, 5000 pF R85**

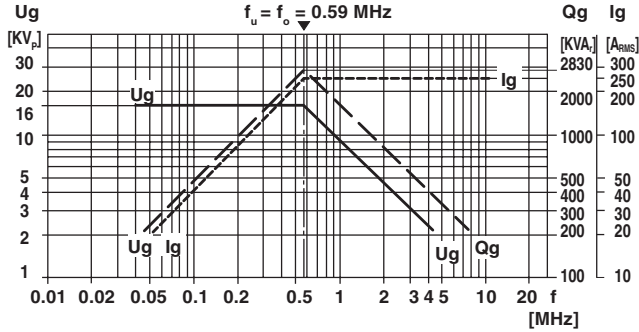


**15 TWXF 135373 25 KV<sub>p</sub>, 5000 pF R85**

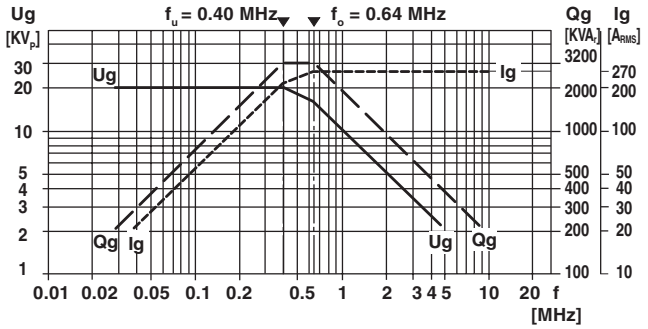


**DERATING DIAGRAMS**

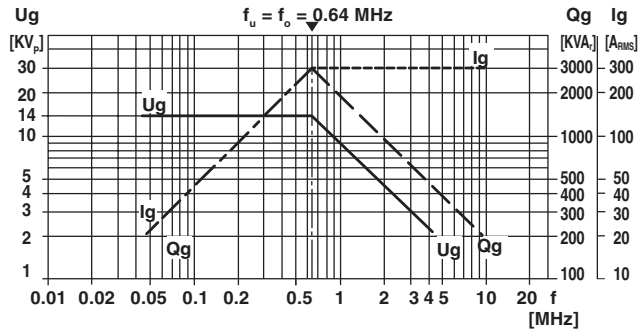
**16 TWXF 135272 16 KV<sub>p</sub> 6000 pF R85**



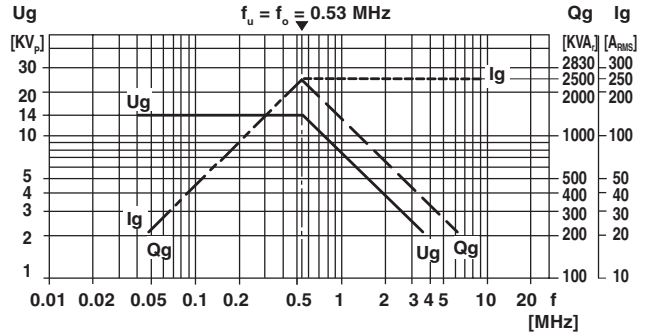
**17 TWXF 165278 20 KV<sub>p</sub> 6000 pF R85**



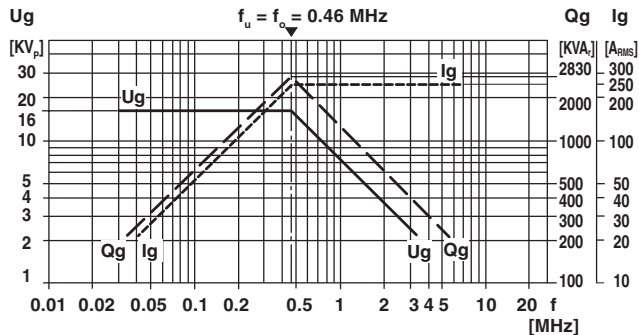
**18 TWXF 165270 14 KV<sub>p</sub> 7500 pF R85**



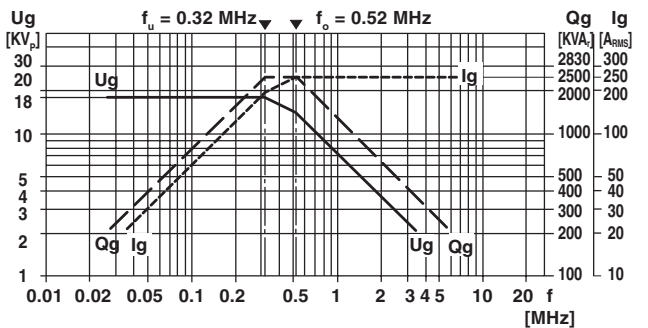
**19 TWXF 125300 14 KV<sub>p</sub> 7500 pF R85**



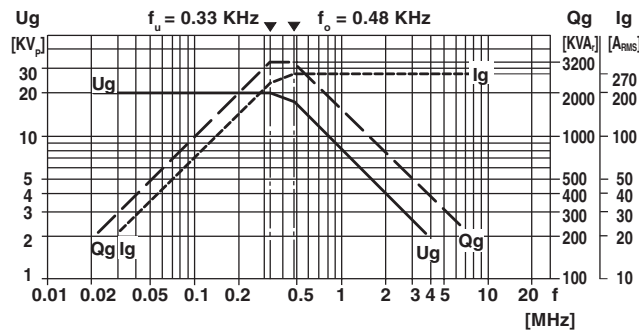
**20 TWXF 165270 16 KV<sub>p</sub> 7600 pF R85**



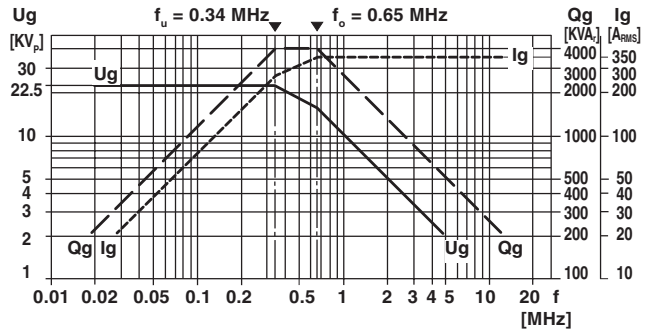
**21 TWXF 125420 18 KV<sub>p</sub> 7600 pF R85**



**22 TWXF 165336 20 KV<sub>p</sub> 7600 pF R85**

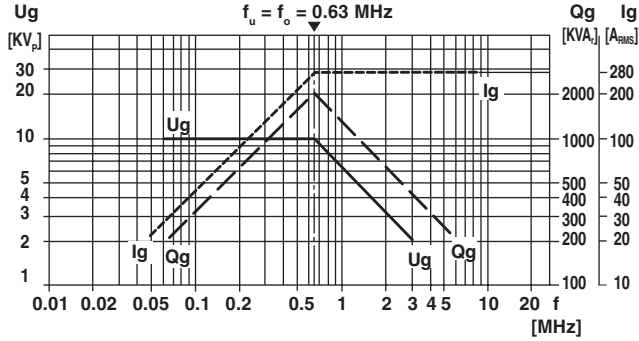


**23 TWXF 165336 22.5 KV<sub>p</sub> 7500 pF R85**

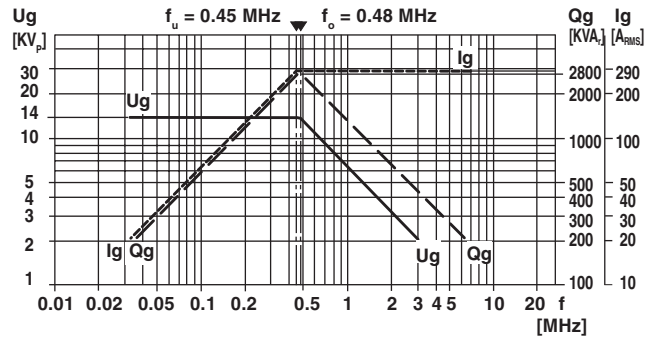


**DERATING DIAGRAMS**

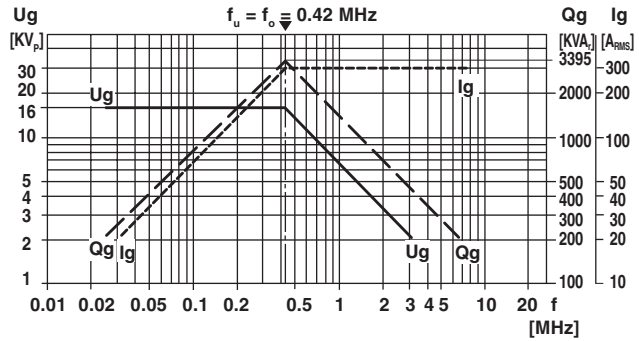
**24 TWXF 125300 10 KV<sub>p</sub> 10 000 pF R85**



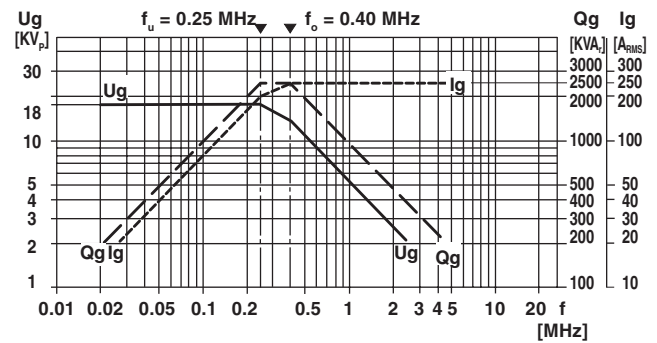
**25 TWXF 125405 14 KV<sub>p</sub> 10 000 pF R85**



**26 TWXF 165335 16 KV<sub>p</sub> 10 000 pF R85**



**27 TWXF 165420 18 KV<sub>p</sub> 10 000 pF R85**





## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.