

RF Power Pot Capacitors for Dielectric Heating Equipment, R16 HQ Ceramic Dielectric



QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Ceramic Class	1
Ceramic Dielectric	R16 HQ
Type	TDZ 045124, TDZ 050124, TDZ 050141 TDZ 050157, TDZ 050172
Voltage (V _p)	18 000
Min. Capacitance (pF)	100
Max. Capacitance (pF)	400
Mounting	Screw terminal

MATERIAL

Capacitor elements made from class 1 ceramic dielectric with noble metal electrodes.

Connection terminals:
made from copper / brass, silver plated.

FINISH

Capacitor body completely protective lacquered.
The contoured insulating rim is additionally glazed.

MARKING

Type designator, capacitance value and tolerance, rated peak voltage, ceramic material code, production date code, manufacturer logo.

FEATURES

These capacitors feature a Q-factor of greater than 10 000 which makes them ideal in operating frequency range from 0.1 MHz up to 30 MHz where high voltages and currents are present. The TDZ model can be used as replacements for fixed vacuum capacitors. The construction gives these capacitors an advantage over fixed vacuum capacitors because there is no possibility of vacuum deterioration.

APPLICATIONS

Dielectric heating equipments in industrial segment.

CAPACITANCE RANGE

100 pF to 400 pF

CAPACITANCE TOLERANCE

± 10 %

CERAMIC DIELECTRICS

R16 High Q (TCC + 100 ppm/K)

RATED VOLTAGE

18 kV_p

DIELECTRIC STRENGTH TEST

180 % to 200 % of rated AC voltage (50 Hz, 5 minutes)

RF POWER TEST

130 % rated power, for 5 minutes in a test generator circuit

DISSIPATION FACTOR

Max. 0.025 % (1 MHz)

INSULATION RESISTANCE

Min. 100 000 MΩ (at 25 °C)

OPERATING TEMPERATURE RANGE

-55 °C to +100 °C

SAP PART NUMBER AND ELECTRICAL DATA					
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV _p)	RATED POWER ⁽¹⁾ (kvar)	RATED CURRENT (A _{RMS})
TYPE TDZ 045124					
TDZ45124WN10136CB#	R16 HQ	100	18	Up to 500	65
TDZ45124WN15136CB#		150			115
TYPE TDZ 050124					
TDZ50124WN20136CB#	R16 HQ	200	18	Up to 600	150
TDZ50124WN25136CB#		250			
TYPE TDZ 050141					
TDZ50141WN30136CB#	R16 HQ	300	18	Up to 600	150
TYPE TDZ 050157					
TDZ50157WN35136CB#	R16 HQ	350	18	Up to 600	150
TYPE TDZ 050172					
TDZ50172WN40136CB#	R16 HQ	400	18	Up to 600	150

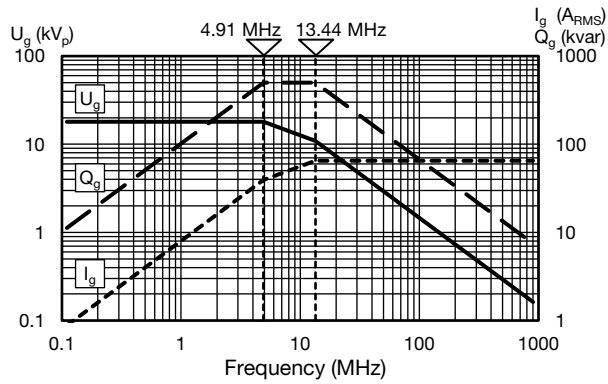
Notes

- 18th digit: code number of the terminal version
 - 1 = solid cylindrical brass terminals; Ø 20.6 mm (0.81" Dia.)
This allow plug-in compatible fuse clip mounting for vacuum capacitor replacement
 - 2 = solid hexagonal brass terminals; SW 17 mm (HEX 0.67"); with M6 threads
- ⁽¹⁾ The surface temperature during operation must not exceed +100 °C

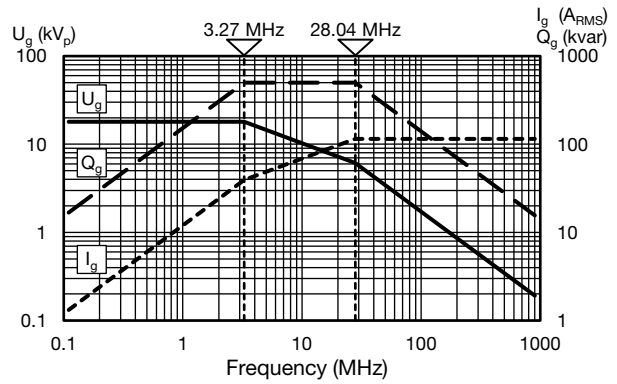
DIMENSIONS in millimeters (inches)			
Type TDZ ...1	Type TDZ ...2		
TYPE	D₁	D₂	L₁
TDZ 045124	Ø 45 (1.77 Dia.)	Ø 68 (2.68 Dia.)	163 + 5 (6.42 + 0.20)
TDZ 050124	Ø 51 (2.01 Dia.)	Ø 75 (2.95 Dia.)	163 + 5 (6.42 + 0.20)
TDZ 050141			178 + 5 (7.01 + 0.20)
TDZ 050157			194 + 5 (7.64 + 0.20)
TDZ 050172			209 + 5 (8.23 + 0.20)

DERATING DIAGRAMS

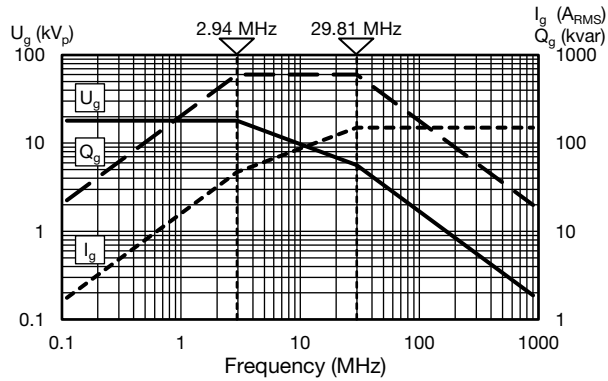
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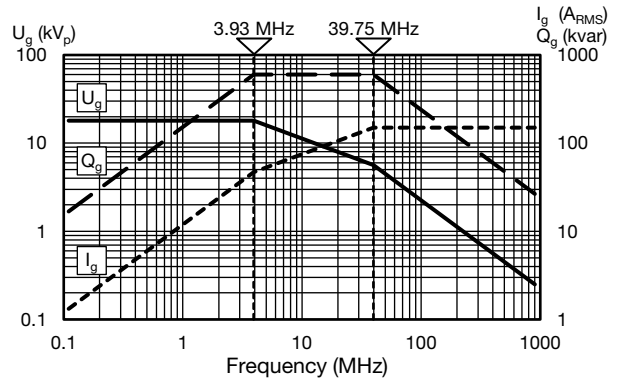
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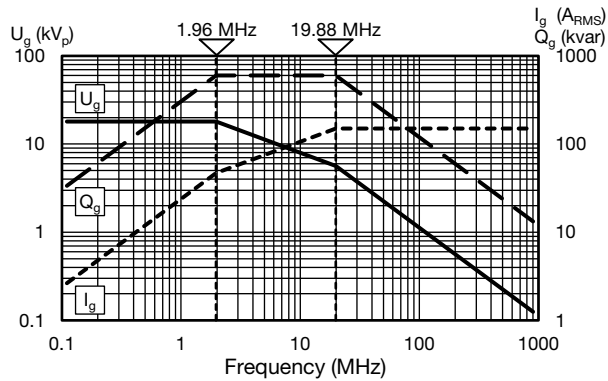
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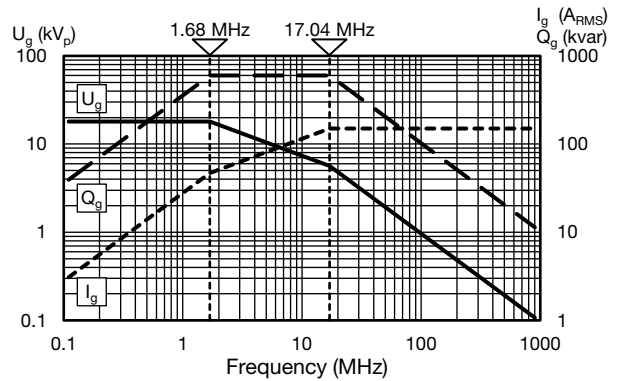
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TDZ50141WN30136CB#



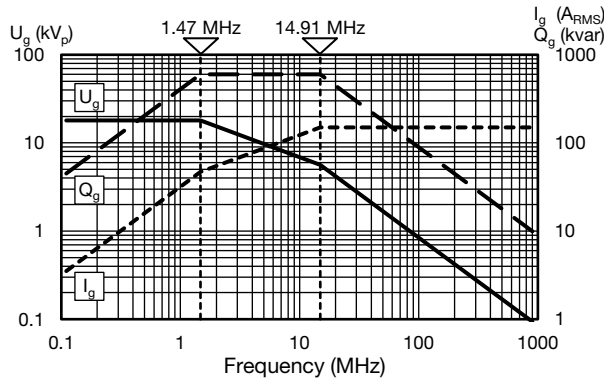
TDZ50157WN35136CB#





DERATING DIAGRAMS

TDZ50172WN40136CB#



RELATED DOCUMENTS

General Information

www.vishay.com/doc?22071



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