

## Overview

NeoCapacitor® provides excellent performance for various applications due to high conductivity of the conductive polymer.

TOKIN's devices are classified into the following three quality grades, in accordance with their application: Standard, Special, and Specific. The quality grade of all devices in this document is "standard" and cannot be used for "special" or "specific" quality grade applications. Customers who intend to use the products in this document for applications other than "standard" quality grade must contact KEMET sales representative in advance.

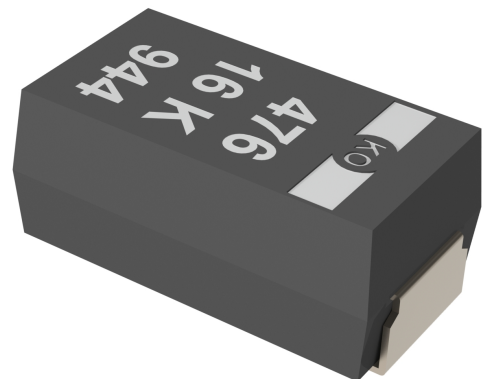
**Standard:** This quality grade is intended for applications in which failure or malfunction of the device is highly unlikely to cause harm to persons or damage to property, or be the source of any negative effects or problems in the wider community.

**Special:** This quality grade is intended for special applications that have common requirements, such as specific industrial fields. Devices with a "special" quality grade are designed, manufactured, and tested using more a stringent quality assurance program than what is used for "standard" grade devices. There is a high possibility that failure or malfunction of the device when being used for applications in this category will cause harm to persons or damage to property, or bring negative effects or problems in the wider community.

**Specific:** Devices in this quality grade are designed, manufactured, and tested using a quality assurance program that is designated by the customer or that is created in accordance with the customer's specifications. There is an extremely high possibility that failure or malfunction of the device when being used for applications in this category will cause harm to persons or damage to property, or bring serious problems in the wider community. Customers who use KEMET's products for these "specific" applications must conclude an individual quality agreement and/or development agreement with KEMET. A quality assurance program designated by the customer must also be determined in advance.

## Benefits

- Excellent noise absorption performance
- Higher ripple current
- Miniaturized, thinner, higher capacitance and lower ESR
- Lead free (JEITA PHASE3), RoHS2 directive (2011/65/EU + 2015/863/EU) and halogen-free.
- Antimony-free and Red phosphorous-free materials for mold resin.



## Applications

Typical applications include voltage smoothing, noise absorption in high speed operation circuit, multi media instruments, PC (voltage smoothing and noise absorption of CPU, memory and various LSI), Smartphone, mobile phone (stabilization of battery voltage, stabilization for display), LCD TV (stabilization of LCD driver and timing controller) and others (tablet, PC, portable audio player, DSC, DVC, HDD, SSD, communication card)

## K-SIM

For a detailed analysis of specific part numbers, please visit [ksim.kemet.com](http://ksim.kemet.com) to access KEMET's K-SIM software. KEMET K-SIM is designed to simulate behavior of components with respect to frequency, ambient temperature, and DC bias levels.

## Ordering Information

PSK	V	0J	477	M	055	C
Series	Case Code	DC Rated Voltage in Volts	Capacitance (pF)	Capacitance tolerance	ESR Spec	Reel Diameter
Larger case size	V (7343-19) V15 (7343-15) D (7343-31)	0E = 2.5 V 0G = 4 V 0J = 6.3 V 1A = 10 V 1C = 16 V 1D = 20 V 1E = 25 V	First two digits represents the cap code. Third digit specifies number of zeros to follow	M = ±20%	055 = 55 mΩ	B = 180 mm C = 330 mm

## Performance Characteristics

Item	Performance Characteristics
Operating Temperature	-55°C to +105°C
Rated Voltage Range (V)	2.5 – 25
Surge Voltage (V)	1.3 x rated voltage
Nominal Capacitance (120 Hz)	15 μF ~ 1,000 μF*
Dissipation Factor (tan δ, 120 Hz)	Refer to Standard Ratings*
Leakage Current (LC, V <sub>R</sub> , 5 minutes)	Refer to Standard Ratings
Equivalent Series Resistance (ESR, 100 kHz)	Refer to Standard Ratings
Permissible Ripple Current (100 kHz)	Refer to Standard Ratings

\* For these measurements apply 1.5 VDC

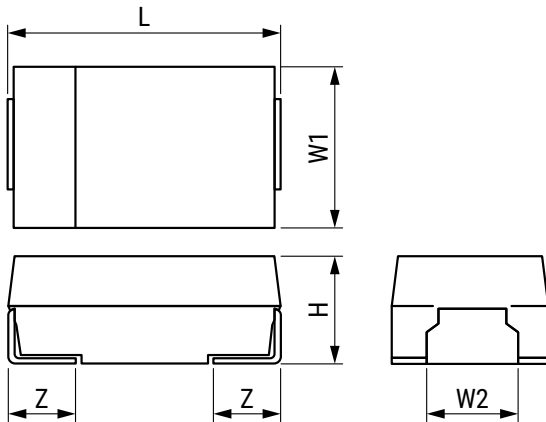
## Qualification

Test	Condition	Characteristics			
Surge Voltage	Temperature: 105°C, Surge Voltage apply, 1,000 cycles	$\Delta C/C$	Within -20%/+10% of the initial value		
		$\tan \delta$	Within IL		
		LC	Within IL		
Temperature Stability	Temperature exposure at +25°C, -55°C, +105°C		+25°C	-55°C	+105°C
		$\Delta C/C$	-	Within -20%/+20% compare with +25°C	Within -30%/+30% compare with +25°C
		$\tan \delta$	Within IL	Within IL	Within 1.5 × IL
		LC	Within IL	-	Within 10 × IL
Endurance	Temperature: 105°C, Rated voltage apply, 2,000 hours	$\Delta C/C$	Within -20%/+10% of the initial value		
		$\tan \delta$	Within IL		
		LC	Within 1.25 × IL		
Humidity	Temperature: 60°C, Humidity: 90% R.H., 500 hours	$\Delta C/C$	Within -5%/+35% of the initial value		
		$\tan \delta$	Within IL		
		LC	Within 3 × IL		

IL = Initial limit

## Dimensions – Millimeters

Metric will govern



Case Size		Component Dimensions				
KEMET	EIA	L ±0.3	W1 ±0.3	W2 ±0.1	H	Z ±0.2
D	7343-31	7.3	4.3	2.4	2.8±0.3	1.3
V	7343-19	7.3	4.3	2.4	1.9±0.1	1.3
V15	7343-15	7.3	4.3	2.4	1.4±0.1	1.3

**Table 1 – Ratings & Part Number Reference**

Rated Voltage	Rated Capacitance	Case Code/ Case Size	KEMET Part Number	Leakage Current	tan δ	ESR	Permissible Ripple Current	Rated and Maximum Operating Temperature
V	µF	KEMET/EIA		µA at +25°C Maximum	% at 25°C 120 Hz Maximum	mΩ at 25°C 100 kHz Maximum	(mA <sub>rms</sub> , +45°C, 100 kHz) Maximum	°C
2.5	330	V/7343-19	PSKV0E337M025C	82.5	10	25	2700	105
2.5	330	V/7343-19	PSKV0E337M015C	82.5	10	15	3500	105
2.5	330	V/7343-19	PSKV0E337M012C	82.5	10	12	3900	105
2.5	470	V/7343-19	PSKV0E477M009C	118	10	9	4600	105
2.5	470	V/7343-19	PSKV0E477M012C	118	10	12	3900	105
2.5	470	V/7343-19	PSKV0E477M015C	118	10	15	3500	105
2.5	680	D/7343-31	PSKD0E687M040B	170	10	40	2400	105
2.5	680	D/7343-31	PSKD0E687M015B	170	10	15	3900	105
2.5	1000	D/7343-31	PSKD0E108M015B	250	10	15	3900	105
4	220	D/7343-31	PSKD0G227M012B	88	10	12	4300	105
4	220	V/7343-19	PSKV0G227M045C	88	10	45	2000	105
4	220	V/7343-19	PSKV0G227M025C	88	10	25	2700	105
4	220	V/7343-19	PSKV0G227M018C	88	10	18	3200	105
4	220	V/7343-19	PSKV0G227M015C	88	10	15	3500	105
4	220	V/7343-19	PSKV0G227M012C	88	10	12	3900	105
4	220	V/7343-19	PSKV0G227M009C	88	10	9	4600	105
4	330	D/7343-31	PSKD0G337M040B	132	10	40	2400	105
4	330	D/7343-31	PSKD0G337M015B	132	10	15	3900	105
4	330	V/7343-19	PSKV0G337M025C	132	10	25	2700	105
4	470	D/7343-31	PSKD0G477M025B	188	10	25	3000	105
4	470	D/7343-31	PSKD0G477M018B	188	10	18	3500	105
4	470	D/7343-31	PSKD0G477M015B	188	10	15	3900	105
4	470	D/7343-31	PSKD0G477M012B	188	10	12	4300	105
4	470	D/7343-31	PSKD0G477M010B	188	10	10	4700	105
4	680	D/7343-31	PSKD0G687M025B	272	10	25	3000	105
4	680	D/7343-31	PSKD0G687M015B	272	10	15	3900	105
4	680	D/7343-31	PSKD0G687M012B	272	10	12	4300	105
6.3	100	V/7343-19	PSKV0J107M015C	63	10	15	3500	105
6.3	150	D/7343-31	PSKD0J157M055B	95	10	55	2000	105
6.3	150	D/7343-31	PSKD0J157M025B	95	10	25	3000	105
6.3	150	V/7343-19	PSKV0J157M045C	95	10	45	2000	105
6.3	150	V/7343-19	PSKV0J157M025C	95	10	25	2700	105
6.3	150	V/7343-19	PSKV0J157M018C	95	10	18	3200	105
6.3	150	V/7343-19	PSKV0J157M015C	95	10	15	3500	105
6.3	150	V/7343-19	PSKV0J157M012C	95	10	12	3900	105
6.3	220	D/7343-31	PSKD0J227M050B	139	10	50	2100	105
6.3	220	D/7343-31	PSKD0J227M040B	139	10	40	2400	105
6.3	220	D/7343-31	PSKD0J227M025B	139	10	25	3000	105
6.3	220	V/7343-19	PSKV0J227M040C	139	10	40	2200	105
6.3	220	V/7343-19	PSKV0J227M025C	139	10	25	2700	105
V	µF	KEMET/EIA		µA at +25°C Maximum	% at 25°C 120 Hz Maximum	mΩ at 25°C 100 kHz Maximum	(mA <sub>rms</sub> , +45°C, 100 kHz) Maximum	°C
Rated Voltage	Rated Capacitance	Case Code/ Case Size	KEMET Part Number	Leakage Current	tan δ	ESR	Permissible Ripple Current	Rated and Maximum Operating Temperature

\* ESR and Ripple measurement condition is 300 to 500kHz

∅ Ripple current condition is at 105°C, 100kHz

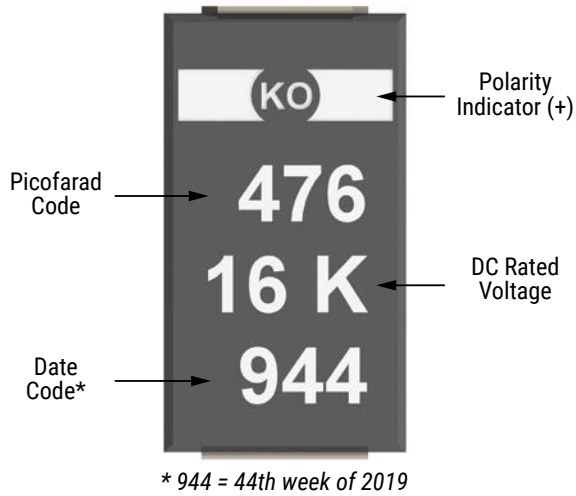
**Table 1 – Ratings & Part Number Reference cont.**

Rated Voltage	Rated Capacitance	Case Code/ Case Size	KEMET Part Number	Leakage Current	tan $\delta$	ESR	Permissible Ripple Current	Rated and Maximum Operating Temperature
V	$\mu$ F	KEMET/EIA		$\mu$ A at +25°C Maximum	% at 25°C 120 Hz Maximum	m $\Omega$ at 25°C 100 kHz Maximum	(mA <sub>rms</sub> , +45°C, 100 kHz) Maximum	°C
6.3	220	V/7343-19	PSKV0J227M015C	139	10	15	3500	105
6.3	220	V/7343-19	PSKV0J227M012C	139	10	12	3900	105
6.3	330	D/7343-31	PSKD0J337M040B	208	10	40	2400	105
6.3	330	D/7343-31	PSKD0J337M025B	208	10	25	3000	105
6.3	330	D/7343-31	PSKD0J337M018B	208	10	18	3500	105
6.3	330	D/7343-31	PSKD0J337M015B	208	10	15	3900	105
6.3	330	D/7343-31	PSKD0J337M010B	208	10	10	4700	105
6.3	330	D/7343-31	PSKD0J337M009B	208	10	9	5000	105
6.3	330	V/7343-19	PSKV0J337M045C	208	10	45	2000	105
6.3	330	V/7343-19	PSKV0J337M025C	208	10	25	2700	105
6.3	330	V/7343-19	PSKV0J337M015C	208	10	15	3500	105
6.3	470	D/7343-31	PSKD0J477M015B	296	10	15	3900	105
6.3	470	V/7343-19	PSKV0J477M055C	296	10	55	1800	105
10	68	D/7343-31	PSKD1A686M100B	68	10	100	1500	105
10	68	V/7343-19	PSKV1A686M060C	68	10	60	1800	105
10	68	V/7343-19	PSKV1A686M045C	68	10	45	2000	105
10	100	D/7343-31	PSKD1A107M055B	100	10	55	2000	105
10	100	V/7343-19	PSKV1A107M045C	100	10	45	2000	105
10	100	V/7343-19	PSKV1A107M025C	100	10	25	2700	105
10	150	D/7343-31	PSKD1A157M055B	150	10	55	2000	105
10	150	D/7343-31	PSKD1A157M040B	150	10	40	2400	105
10	150	D/7343-31	PSKD1A157M025B	150	10	25	3000	105
10	150	V/7343-19	PSKV1A157M040C	150	10	40	2200	105
10	220	D/7343-31	PSKD1A227M040B	220	10	40	2400	105
10	220	D/7343-31	PSKD1A227M025B	220	10	25	3000	105
10	220	V/7343-19	PSKV1A227M025C	220	10	25	2700	105
16	47	D/7343-31	PSKD1C476M070B	75.2	10	70	1800	105
16	47	V/7343-19	PSKV1C476M070C	75.2	10	70	1600	105
16	68	V/7343-19	PSKV1C686M050C	108.8	10	50	1900	105
16	100	V/7343-19	PSKV1C107M050C	160	10	50	1900	105
16	150	D/7343-31	PSKD1C157M050B	240	10	50	2100	105
20	22	V/7343-19	PSKV1D226M090C	44	10	90	1400	105
20	47	D/7343-31	PSKD1D476M055B	94	10	55	2000	105
20	47	V/7343-19	PSKV1D476M070C	94	10	70	1600	105
20	47	V15/7343-15	PSKV151D476M045C	94	9	45	2000	105
25	15	V/7343-19	PSKV1E156M090C	37.5	10	90	1400	105
25	22	V/7343-19	PSKV1E226M090C	55	10	90	1400	105
25	22	V/7343-19	PSKV1E226M060C	55	10	60	1800	105
25	33	D/7343-31	PSKD1E336M060B	82.5	10	60	1900	105
25	33	V/7343-19	PSKV1E336M060C	82.5	10	60	1800	105
V	$\mu$ F	KEMET/EIA		$\mu$ A at +25°C Maximum	% at 25°C 120 Hz Maximum	m $\Omega$ at 25°C 100 kHz Maximum	(mA <sub>rms</sub> , +45°C, 100 kHz) Maximum	°C
Rated Voltage	Rated Capacitance	Case Code/ Case Size	KEMET Part Number	Leakage Current	tan $\delta$	ESR	Permissible Ripple Current	Rated and Maximum Operating Temperature

\* ESR and Ripple measurement condition is 300 to 500kHz

∅ Ripple current condition is at 105°C, 100kHz

## Capacitor Marking



Date Code *	
1st digit = Last number of Year	7 = 2017 8 = 2018 9 = 2019 0 = 2020
2nd and 3rd digit = Week of the Year	01 = 1st week of the Year to 52 = 52nd week of the Year

## KEMET Electronics Corporation Sales Offices

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Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

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