

## Surface Mount Type

# POSCAP



Series : **TQC**

Size : **B**

### Features

- High voltage (35 V.DC max.)
- RoHS compliance, Halogen free

### Specifications

Size code	B2	
Category temperature range	-55 °C to +105 °C	
Rated voltage range	16 V.DC to 35 V.DC	
Category voltage range	16 V.DC to 35 V.DC	
Rated capacitance range	3.9 μF to 33 μF	
Capacitance tolerance	±20 % (120 Hz / + 20 °C)	
Leakage current	Please see the attached characteristics list	
Dissipation factor (tan δ)	Please see the attached characteristics list	
Surge voltage (V.DC)	Rated voltage × 1.15	
Endurance	+105 °C, 2000 h (16TQC33MYFB : 1000 h), rated voltage applied	
	Capacitance change	Within ±20 % of the initial value
	tan δ	≤ 1.5 times of the initial limit
	DC leakage current	Within the initial limit
Damp heat (Steady State)	+60 °C, 90 % to 95 %, 500 h, No-applied voltage	
	Capacitance change	Within +40 %, -20 % of the initial value
	tan δ	≤ 1.5 times of the initial limit
	DC leakage current	≤ 3 times of the initial limit

### Marking

R. Voltage (V.DC)	16	20	25	35			
Code	C	D	E	V			
R. Cap. (μF)	3.9	5.6	8.2	10	15	22	33
Code	Q6	U6	Y6	A7	E7	J7	N7

### Dimensions (not to scale)

Unit : mm

Size code	L±0.2	W±0.2	H±0.1	S±0.2	W1±0.1
B2	3.5	2.8	1.9	0.8	2.2

\* Externals of figure are the reference.

### Characteristics list

Series	Rated voltage (V.DC)	Rated temp. (°C)	Category voltage (V.DC)	Category temp. (°C)	Rated capacitance (μF)	Case size (mm)			Size code	Specifications				Standard		Floor life	
						L	W	H		Ripple current* <sup>1</sup> (mA r.m.s.)	ESR* <sup>2</sup> (mΩ max.)	tan δ* <sup>3</sup>	LC* <sup>4</sup> (μA)	Part number	Min. Packaging Qty (pcs)	Reflow Temp ≤ 260°C	Reflow Temp ≤ 250°C
TQC	16	105	16.0	105	10	3.5	2.8	1.9	B2	800	100	0.10	48.0	16TQC10M	2000	-	3
					15	3.5	2.8	1.9		1000	90	0.10	72.0	16TQC15M	2000		
					22	3.5	2.8	1.9		1000	90	0.10	35.2	16TQC22MYFB	2000		
					33	3.5	2.8	1.9		1000	90	0.10	158.4	16TQC33MYFB	2000		
	20	105	20.0	105	8.2	3.5	2.8	1.9		800	100	0.10	49.2	20TQC8R2M	2000		
					22	3.5	2.8	1.9		1100	90	0.10	132.0	20TQC22MYFB	2000		
					5.6	3.5	2.8	1.9		800	100	0.10	42.0	25TQC5R6M	2000		
						15	3.5	2.8		1.9	900	100	0.10	112.5	25TQC15MYFB		
	35	105	35.0	105	3.9	3.5	2.8	1.9		500	400	0.10	40.9	35TQC3R9MYF	2000		

\*1 Ripple current (100 kHz/ +105 °C), \*2 ESR (100 kHz/+20 °C) \*3 tan δ (120 Hz/+20 °C) \*4 After 5 minutes

◆ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".

## Surface Mount Type

# POSCAP



Series : **TQC**

Size : **D**

### Features

- High voltage (35 V.DC max.)
- RoHS compliance, Halogen free

### Specifications

Size code	D12	D15	D2	D3L
Category temperature range	-55 °C to +105 °C			
Rated voltage range	16 V.DC	16 V.DC to 25 V.DC	16 V.DC to 35 V.DC	16 V.DC to 25 V.DC
Category voltage range	16 V.DC	16 V.DC to 25 V.DC	16 V.DC to 35 V.DC	16 V.DC to 25 V.DC
Rated capacitance range	33 µF	22 µF to 47 µF	10 µF to 100 µF	68 µF to 150 µF
Capacitance tolerance	±20 % (120 Hz / + 20 °C)			
Leakage current	Please see the attached characteristics list			
Dissipation factor (tan δ)	Please see the attached characteristics list			
Surge voltage (V.DC)	Rated voltage × 1.15			
Endurance	+105 °C, 2000 h, rated voltage applied			
	Capacitance change	Within ±20 % of the initial value		
	tan δ	≤ 1.5 times of the initial limit		
	DC leakage current	Within the initial limit		
Damp heat (Steady State)	+60 °C, 90 % to 95 %, 500 h, No-applied voltage			
	Capacitance change	Within +40 %, -20 % of the initial value		
	tan δ	≤ 1.5 times of the initial limit		
	DC leakage current	≤ 3 times of the initial limit		

### Marking

R. Voltage (V.DC)	16	20	25	35
Code	C	D	1E	V

### Dimensions (not to scale)

Unit : mm

Size code	L±0.2*1	W±0.2	H±0.1*2	S±0.2	W1±0.1
D12	7.3	4.3	1.15	1.3	2.4
D15	7.3	4.3	1.4	1.3	2.4
D2	7.3	4.3	1.9	1.3	2.4
D3L	7.3	4.3	2.8	1.3	2.4

\*1 ±0.3 : D3L  
\*2 ±0.05 : D12, ±0.2 : D3L

### Characteristics list

Series	Rated voltage (V.DC)	Rated temp. (°C)	Category voltage (V.DC)	Category temp. (°C)	Rated capacitance (µF)	Case size (mm)			Size code	Specifications				Standard		Floor life						
						L	W	H		Ripple current*1 (mA r.m.s.)	ESR*2 (mΩ max.)	tan δ*3	LC*4 (µA)	Part number	Min. Packaging Qty (pcs)	Reflow Temp ≤260°C	Reflow Temp ≤250°C					
TQC	16	105	16.0	105	33	7.3	4.3	1.15	D12	1800	40	0.10	52.8	16TQC33MYFS	4500	-	3					
						7.3	4.3	1.9	D2	1400	70	0.10	52.8	16TQC33MYFD	3000							
						47	7.3	4.3	1.4	D15	1500	55	0.10	75.2	16TQC47MYFT			3000				
							7.3	4.3	1.9	D2	1800	40	0.10	75.2	16TQC47MW			3000				
							7.3	4.3	1.9		1450	55	0.10	75.2	16TQC47MYFD			3000				
							68	7.3	4.3	1.9	D2	1500	50	0.10	108.8			16TQC68MYF	3000			
					7.3			4.3	1.9	1800		50	0.10	160.0	16TQC100MYF			3000				
					100		7.3	4.3	2.8	D3L	1800	50	0.10	240.0	16TQC150MYF			2500				
						7.3	4.3	1.9	1500		70	0.15	240.0	1CTQC15173F1	3000							
					20	105	20.0	105	105	33	7.3	4.3	1.9	D2	1400			60	0.10	66.0	20TQC33MYFD	3000
											7.3	4.3	1.9		1450			55	0.10	94.0	20TQC47MYF	3000
											47	7.3	4.3	1.4	D15			1500	55	0.10	94.0	20TQC47MYFT
	7.3	4.3	1.9	D2								1250	100	0.15				200.0	20TQC100MD2	3000		
	100	7.3	4.3								2.8	D3L	1700	55	0.10			200.0	20TQC100MYF	2500		
		7.3	4.3	1.9							D2		1500	45	0.10			38.0	25TQC15MV	3000		
	25	105	25.0	105	105	15	7.3	4.3	1.9	D2		1000	90	0.10	38.0			25TQC15MYFD	3000			
							7.3	4.3	1.9		1500	45	0.10	55.0	25TQC22MV			3000				
							22	7.3	4.3	1.9	D2	1400	60	0.10	55.0			25TQC22MYFD	3000			
								7.3	4.3	1.4		D15	1400	70	0.10			55.0	25TQC22MYFT	3000		
							33	7.3	4.3	1.9	D2		1400	60	0.10			82.5	25TQC33MYF	3000		
								7.3	4.3	2.8		D3L	1400	70	0.10			170.0	25TQC68MYF	2500		
	35	105	35.0	105	105	10	7.3	4.3	1.9	D2	1000		120	0.10	35.0			35TQC10M	3000			
							7.3	4.3	1.9		1000	120	0.10	35.0	35TQC10MYF			3000				
							15	7.3	4.3	1.9	D2	900	150	0.10	52.5			35TQC15MYF	3000			
7.3								4.3	1.9													

\*1 Ripple current (100 kHz/ +105 °C), \*2 ESR (100 kHz/+20 °C) \*3 tan δ (120 Hz/+20 °C) \*4 After 5 minutes

◆ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".