



New series 



Construction

- Polar tantalum capacitors with solid electrolyte
- Flame-retardant plastic case (UL 94 V-0)
- Optionally tinned or gold-plated terminals
- Maximum height 1,5 mm

Features

- High volumetric efficiency
- Excellent solderability
- Stable temperature and frequency characteristics
- Low leakage current, low dissipation factor
- Low self-inductance
- High resistance to shock and vibration
- Suitable for use without series resistor
- Low ESR (version R)

Applications

- Telecommunications (e.g. mobile phones, private branch exchanges)
- Data processing (e.g. laptops, main frames)
- Measuring and control engineering
- Automotive electronics
- Medical engineering
- Switch-mode power supplies with very high clock frequencies (300 kHz)
- DC/DC converters

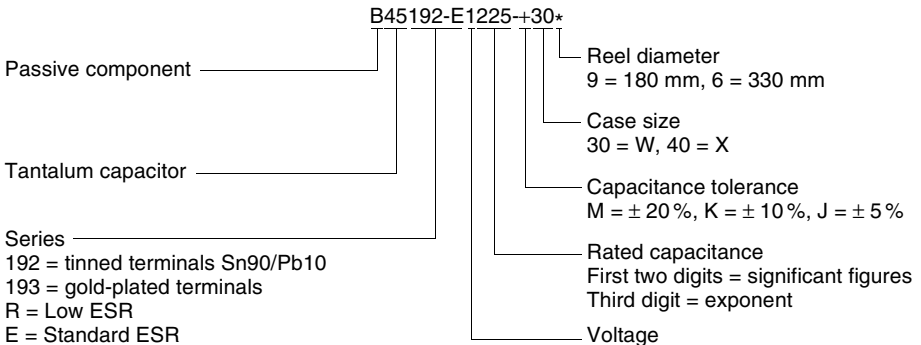
Soldering

Suitable for reflow soldering (IR and vapor phase) and wave soldering

Delivery mode

Taped and reeled in accordance with IEC 60286-3

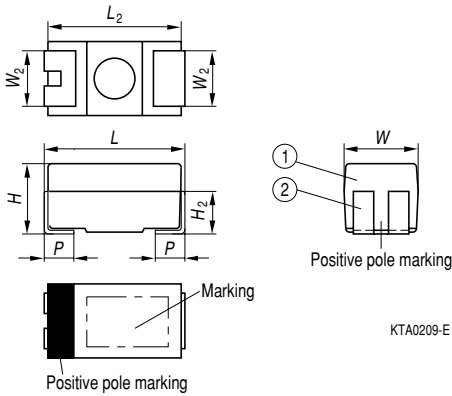
Ordering code structure




Specifications and characteristics in brief

For characteristic curves see page 73.

	Standard		Low ESR	
	B45192-E	B45193-E	B45192-R	B45193-R
Series	B45192-E	B45193-E	B45192-R	B45193-R
Terminals	tinned	gold-plated	tinned	gold-plated
Rated voltage V_R (up to 85 °C)	10 ... 16 Vdc		10 ... 16 Vdc	
Rated capacitance C_R	22 ... 100 μ F		22 ... 100 μ F	
Capacitance tolerance	$\pm 10\%$, $\pm 20\%$ $\pm 5\%$ (on request)		$\pm 10\%$, $\pm 20\%$ $\pm 5\%$ (on request)	
Failure rate $C_R \cdot V_R > 330 \mu\text{F} \cdot \text{V}$	at 40 °C; $\leq V_R$, $R_S \geq 3 \Omega/\text{V}$ (1 fit = $1 \cdot 10^{-9}$ failures/h) ≤ 24 fit		≤ 24 fit	
Service life	> 500 000 h		> 500 000 h	
Leakage current (V_R , 5 min, 20 °C)	10 nA/ μ C		10 nA/ μ C	
ESR	—		200 ... 500 m Ω	
IEC climatic category	in accordance with IEC 60068-1 55/125/56 (–55/+125 °C; 56 days damp heat test)			

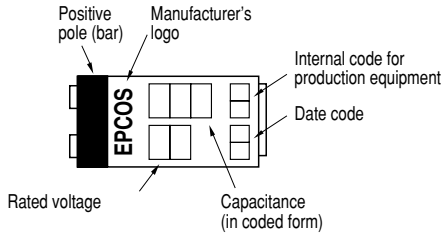
Dimensional drawing


- ① Encapsulation: molded epoxy resin
- ② NiFe; surface Sn90/Pb10 or gold-plated

Case size	Dimensions in mm (inches)						
	L	W	H	L_2 typ.	$W_2 \pm 0,1$ $\pm(,004)$	H_2 typ.	$p \pm 0,3$ $\pm(,012)$
W (30)	$6,0 \pm 0,3$ (,236 \pm ,012)	$3,2 \pm 0,3$ (,126 \pm ,012)	1,5 max (0,059 mm)	5,8 (,228)	2,2 (,087)	1,1 (0,043)	1,3 (,051)
X (40)	$7,3 \pm 0,3$ (,287 \pm ,012)	$4,3 \pm 0,3$ (,169 \pm ,012)	1,5 max (0,059 mm)	7,1 (,280)	2,4 (,094)	1,1 (0,043)	1,3 (,051)

Marking

Case sizes X, W



KTA0113-1

Capacitance coding

1st and 2nd digit	Capacitance in pF
3rd digit	Multiplier: 6 = 10^6 pF 7 = 10^7 pF

Date coding

Year	Month	
K = 1998	1 = January	7 = July
L = 1999	2 = February	8 = August
M = 2000	3 = March	9 = September
N = 2001	4 = April	O = October
P = 2002	5 = May	N = November
R = 2003	6 = June	D = December

In addition to the year and month of manufacture, the stamp includes another two figures which internally allow us an assignment to concrete production equipment.

Overview of available types

	Standard		Low ESR	
Series	B45192-E, tinned terminals (Sn90/Pb10) B45193-E, gold-plated terminals		B45192-R, tinned terminals (Sn90/Pb10) B45193-R, gold-plated terminals	
V_R (Vdc) up to 85 °C	6,3	10	6,3	10
C_R (µF)				
22		W		W
33		W		W
47	W		W	
68	X		X	
100	X		X	

Technical data and ordering codes for B45192-E, B45193-E

V_R up to 85 °C (up to 125 °C) Vdc	C_R µF	Case size	$\tan \delta_{\max}$ (20 °C, 120 Hz)	$I_{lk, \max}$ (20 °C, V_R , 5 min) µA	Z_{\max} (20 °C, 100 kHz) Ω	Ordering code ¹⁾ Tinned terminals (Sn90/Pb10)
10 (6,3)	47	W	0,06	4,7	1,4	B45192-E2476-+30*
	68	X	0,06	6,8	1,2	B45192-E2686-+40*
	100	X	0,08	10	0,8	B45192-E2107-+40*
16 (10)	22	W	0,06	3,5	1,5	B45192-E3226-+30*
	33	W	0,06	5,3	1,4	B45192-E3336-+30*

Technical data and ordering codes for B45192-R, B45193-R

V_R up to 85 °C (up to 125 °C) Vdc	C_R µF	Case size	$\tan \delta_{\max}$ (20 °C, 120 Hz)	$I_{lk, \max}$ (20 °C, V_R , 5 min) µA	$ESR_{\max}^{(2)}$ (20 °C, 100 kHz) mΩ	I_{ac} (20 °C, 100 kHz) A	Ordering code ¹⁾ Tinned terminals (Sn90/Pb10)
10 (6,3)	47	W	0,06	4,7	400	0,47	B45192-R2476-+30*
	68	X	0,06	6,8	200	0,55	B45192-R2686-+40*
	100	X	0,08	10	200	0,55	B45192-R2107-+40*
16 (10)	22	W	0,06	3,5	500	0,42	B45192-R3226-+30*
	33	W	0,06	5,3	400	0,47	B45192-R3336-+30*

Upon request

- 1) Replace 192-R by 193-R for gold-plated terminals
+ Code letter for capacitance tolerance: M = ± 20 %, K = ± 10 % (J = ± 5 % upon request)
* Code number for reel diameter: 9 = 180 mm, 6 = 330 mm
- 2) Other values upon request

Herausgegeben von EPCOS AG

Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND

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Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

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