

Glass-K Capacitors

CK31, 32 (QPL to MIL-C-11015/25)



APPLICATIONS

These miniature multilayer ceramic capacitors, style CK31 and CK32, meet or exceed all requirements of MIL-C-11015/25. High volumetric efficiency and reliable performance result from the special GLASS-K dielectric, which is fused into a compact monolithic structure. Available in three different stability characteristics, these capacitors are suitable for both military and commercial applications in miniature circuitry.

PERFORMANCE CHARACTERISTICS

Tolerance: $\pm 20\%$ and $\pm 10\%$ in characteristics "U" and "V", and $\pm 10\%$ and $\pm 5\%$ in characteristic "T".

Stability Characteristics: Available as follows:

BT-TC: +2, -10%; TVC: +2, -10%

BU-TC: +2, -15%; TVC: +2, -15%

BV-TC: +20, -45%; TVC: +20, -50%

Dissipation Factor:

BT: $\leq 1.0\%$

BU: $\leq 1.5\%$

BV: $\leq 3.0\%$

Life: Meets or exceeds requirements of MIL-C-11015. At 200% of rated voltage, 125°C, the maximum capacitance change for each stability characteristic is as follows:

BT: $\pm 2\%$

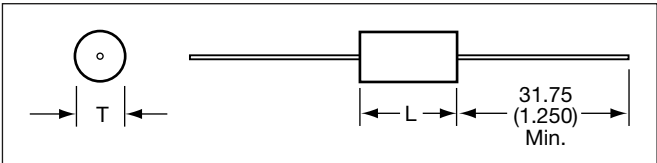
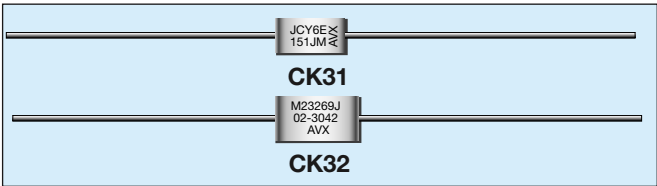
BU: $\pm 5\%$

BV: $\pm 20\%$

Insulation Resistance: 100,000 megohms or 1,000 megohm-microfarads, whichever is less.

Voltage/Temperature Ratings: Rated voltage is 50 Vdc. The operating temperature range is -55°C to +125°C.

Moisture Resistance: Meets or exceeds requirements of MIL-C-11015 and MIL-STD-202, Method 106. The capacitance change is less than 2% for stability characteristics T and U, and less than 5% for characteristic V.



DIMENSIONS:

millimeters (inches)

Case Size	L $\pm .254$ (0.010)	D $\pm .254$ (0.010)	Lead Dia. $+0.1(+0.004)$ $-0.03(\pm 0.001)$	Weight (Grams) (Typ.)
CK31	6.09 (0.240)	2.29 (0.090)	.41 (0.016)	.2
CK32	6.09 (0.240)	3.30 (0.130)	.41 (0.016)	.3

Note: Leads are gold-plated, solderable and weldable Dumet per MIL-STD-1276, Type D.

QUICK SELECTION GUIDE

Capacitance – pF	Style CK	Stability Char.
270 – 10,000	31	BT
12,000 – 20,000	31 32	BU BT
22,000 – 39,000	31 32	BV BU
47,000 – 51,000	31	BV
56,000 – 100,000	32	BV

Glass-K Capacitors

Part Numbers and Ordering Information



HOW TO ORDER

CK	31	B	T	103	K
Style	Case Size	Operating Temperature Range	Stability Characteristic	Capacitance Code	Capacitance Tolerance
	31 32	-55°C to +125°C	T = +2% -10% U = +2% -15% V = +20% -45%	Capacitance Code expressed in picofarads (pF). The first two digits represent significant figures and the third digit specifies the number of zeros to follow; i.e. 103 indicates 10,000 pF.	J = ±5% (T char. only) K = ±10% M = ±20%

MARKING

	AVX = AVX Corporation CK = Style 31 = Case Size B = Operating Temperature Range T = Stability Characteristic 103 = Capacitance, Coded in pF K = Tolerance 0505 = Date Code
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RATINGS & PART NUMBER REFERENCE (Standard Values)

Military Type Designation	Capacitance (pF)	Capacitance Tolerance	WVDC
CK31 (BT)			
CK31BT271*	270	J, K	50
CK31BT331	330	J, K	50
CK31BT391	390	J, K	50
CK31BT471	470	J, K	50
CK31BT561	560	J, K	50
CK31BT681	680	J, K	50
CK31BT821	820	J, K	50
CK31BT102	1,000	J, K	50
CK31BT122	1,200	J, K	50
CK31BT152	1,500	J, K	50
CK31BT182	1,800	J, K	50
CK31BT222	2,200	J, K	50
CK31BT272	2,700	J, K	50
CK31BT332	3,300	J, K	50
CK31BT392	3,900	J, K	50
CK31BT472	4,700	J, K	50
CK31BT562	5,600	J, K	50
CK31BT682	6,800	J, K	50
CK31BT822	8,200	J, K	50
CK31BT103	10,000	J, K	50
CK31 (BU)			
CK31BU123*	12,000	K, M	50
CK31BU153	15,000	K, M	50
CK31BU183	18,000	K, M	50
CK31BU203	20,000	K, M	50
CK31 (BV)			
CK31BV223*	22,000	K, M	50
CK31BV273	27,000	K, M	50
CK31BV333	33,000	K, M	50
CK31BV393	39,000	K, M	50
CK31BV473	47,000	K, M	50
CK31BV513	51,000	K, M	50

Add Capacitance Tolerance Letter
 J = ±5%, K = ±10% or M = ±20%

Military Type Designation	Capacitance (pF)	Capacitance Tolerance	WVDC
CK32 (BT)			
CK32BT123*	12,000	J, K	50
CK32BT153	15,000	J, K	50
CK32BT183	18,000	J, K	50
CK32BT203	20,000	J, K	50
CK32 (BU)			
CK32BU223*	22,000	K, M	50
CK32BU273	27,000	K, M	50
CK32BU333	33,000	K, M	50
CK32BU393	39,000	K, M	50
CK32 (BV)			
CK32BV563*	56,000	K, M	50
CK32BV623	62,000	K, M	50
CK32BV683	68,000	K, M	50
CK32BV753	75,000	K, M	50
CK32BV823	82,000	K, M	50
CK32BV913	91,000	K, M	50
CK32BV104	100,000	K, M	50

Add Capacitance Tolerance Letter
 J = ±5%, K = ±10% or M = ±20%