

Medical Grade MLCC

MQ Series



Datasheet Link

http://datasheets.avx.com/AVX-MQ_Series.pdf

Or visit: www.avx.com

Scan Code for Datasheet



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Basic Overview

The MQ series is a multi-layer ceramic capacitor designed for use in the medical implantable device market. These components are designed with advanced qualification requirements, in-process controls & requirements, and lot acceptance testing. All of this is to ensure these components will meet the superior reliability levels of a life supporting application.

Positioning

AVX offers a wide variety of passive components for medical applications that require the utmost reliability.

Applications

- Implantable cardioverter-defibrillator (ICD)
- Pacemakers
- Neuromodulation

Top Selling Points

- 0402 to 2225 case sizes
- Voltage range from 4v to 100v
- Capacitance up to 100 μ F
- Class I & II dielectric materials

Unique Features

- High volumetric efficiency provides maximum capacitance in smallest case sizes
- Internal reliability qualification and Lot Acceptance Testing (LAT) to support customer requirements
- Defined designs, materials, processes, and manufacturing facilities
- Standard & custom designs are available

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How to Order

MQ02	Z	A	100	J	G	T	3	A
Size MQ02 = 0402 MQ03 = 0603 MQ05 = 0805 MQ06 = 1206 MQ10 = 1210 MQ12 = 1812 MQ13 = 1825 MQ14 = 2225	Rated Voltage 4 = 4V 6 = 6.3V Z = 10V Y = 16V 3 = 25V 5 = 50V 1 = 100V	Dielectric Code A = NP0 (COG) C = X7R Z = X7S D = X5R	Capacitance Code (In pF) (2 significant digits + number of zeros) for values <10pF: letter R denotes decimal point. Example: 68pF = 680 8.2pF = 8R2	Capacitance Tolerance B = ±0.1pF C = ±0.25pF D = ±0.5pF F = ±1% (≥10pF) G = ±2% (≥10pF) J = ±5% K = ±10% M = ±20% N = ±30%	Medical Grade	Termination Finish T = Plated Ni & Sn J = 60/40 Sn/Pb B = 5% min Pb Plated Solder 7 = Gold Plated	Packaging 1 = 7" Reel 2 = 7" Reel (0402 only) 3 = 13" Reel 4 = 13" Reel (0402 only) 6 = Waffle	Special Code A = Standard Contact AVX for others

Series Cross

AVX Series	Competitor	Competitor Series
MQ Medical	Vishay Murata	VJ GCH

FAQ's

Q: What is the difference between commercial & medical grade products?

A: Medical grade parts go through rigorous reliability testing for qualification, have specialized change control of processing and raw materials including designated ceramic formulations for each part number, locked manufacturing facility, & data retention for 15 years. These parts also have 100% burn-in, 100% post burn-in electrical test, and 100% visual inspection, among other quality control provisions.

Q: Why is change control important?

A: Change control is a systematic approach to managing all changes made to a product or system. The purpose is to ensure that no unnecessary changes are made, that all changes are documented, and that customer notification is done and approval obtained for significant process changes and changes to design or raw materials.

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