



GC821K0-00
PASSIVE DEVICE
MNS CAPACITOR
RoHS Compliant

GENERAL DESCRIPTION

The GC821K0-00 is a silicon chip capacitor which utilizes silicon nitride as the dielectric layer. This capacitor is preferred over MOS devices because of their improved reliability and ruggedness. This series features generous sizes for mounting ICs and other similar active devices. In addition, they exhibit extremely low thermal resistance to provide an excellent thermal path to thermal ground.

They are used from HF through Ku-bands and exhibit less than 0.1 dB insertion loss over this range.

The working voltage rating is 20 V_{DC}. Special devices with breakdown ratings to 300 V_{DC} and custom sizes are available. Contact factory for details.

This series of devices meets RoHS requirements per EU Directive 2002/95/EC. The standard terminal finish is gold unless otherwise specified. Consult the factory if you have special requirements.

APPLICATIONS

The GC821K0-00 chip capacitor is used in RF circuits for isolation from ground of integrated circuits and other DC biased devices, DC blocks, capacitive coupling and RF bypass. It also can be used for fixed capacitive tuning of oscillators, multipliers or filter elements.

KEY FEATURES

- Excellent Q
- Superior Insertion Loss
- RoHS Compliant¹

1- This device is supplied with gold terminations.

APPLICATION/BENEFITS

- IC DC Isolation
- RF Bias Networks
- DC Block
- RF Bypass
- Capacitive Coupling
- Fixed Tuning Elements
- MMIC Coupling

ABSOLUTE MAXIMUM RATINGS @ 25°C

Rating	Symbol	Value	Unit
Working Voltage	V _R	20	Volts
Temperature Coefficient of Capacitance	T _{CC}	190	ppm/ °C
Storage Temperature	T _{STG}	-65 to +200	°C
Operating Temperature	T _{OP}	-55 to +150	°C

For the most current data, consult MICROSEMI's website: www.MICROSEMI.com
Specifications are subject to change, consult the RFIS factory at (978) 442-5600 for the latest information.



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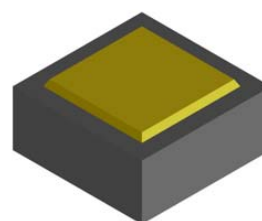
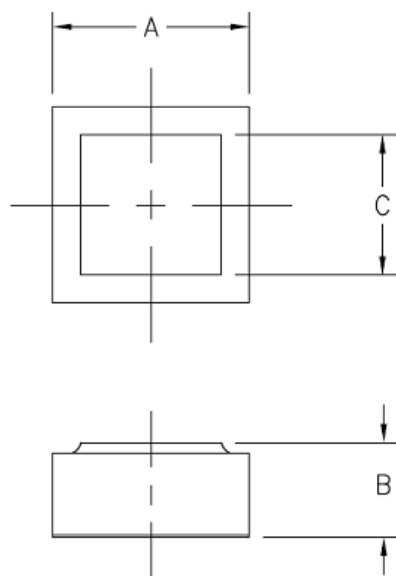
DEVICE ELECTRICAL PARAMETERS AT 25°C

Model Number	Vb Ir = 10uA (V)	C_J@V_R = 0V F = 1MHz (pF)			Ir Vr = 80% Vb (nA)
	Min	Min	Typ	Max	Max
GC821K0-00	20.0	800.0	1000.0	1200.0	10.0



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PACKAGE STYLE 00



DIM	INCHES			MM		
	MIN	TYP	MAX	MIN	TYP	MAX
A	SEE NOTE 1			---	---	---
B	---	0.005	---	---	0.127	---
C	SEE NOTE 1			---	---	---

NOTES:

1. TOP CONTACT, CHIP SIZE AND CHIP THICKNESS DEPENDS ON CAPACITOR PARAMETERS, CONSULT FACTORY.
2. TOP AND BOTTOM CONTACTS GOLD.

Revision History

Revision Level / Date	Para. Affected	Description
2014-13-05	-	Initial

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