

MODEL GA534

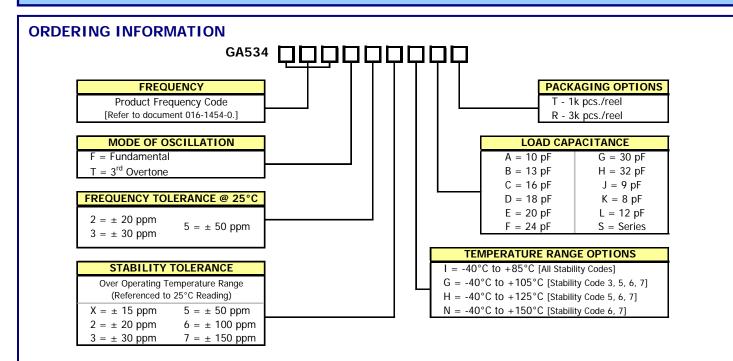
CRYSTAL - AUTOMOTIVE ELECTRONICS

FEATURES

- AEC-Q200 Compliant
- Standard 5.0mm x 3.2mm Glass Seal Package
- Fundamental Crystal Design
- Frequency Range 8 40 MHz Fundamental, 24 120 MHz 3rd Overtone
- Frequency Tolerance; ±20 ppm, ±30 ppm and ± 50 ppm
- Frequency Stability, reference Ordering Information
- Operating Temperature, -40°C to +125°C standard
- Tape & Reel Packaging Standard, EIA-481
- RoHS Compliant in Accordance with EU Directive 2011/65/EU
 - Lead-Free Termination Finish
 - Exemption 7(c)-I, Electrical and electronic components containing lead [Pb] in glass

APPLICATIONS

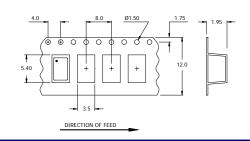
Model GA534 is a low cost crystal specifically developed for use in automotive electronics.

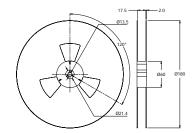


Not all performance combinations and frequencies may be available. Contact your local CTS Representative or CTS Customer Service for availability.

PACKAGING INFORMATION [Reference]

Device quantity is 1k pcs. minimum and 3k pcs. maximum per 180mm reel.





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REV. A

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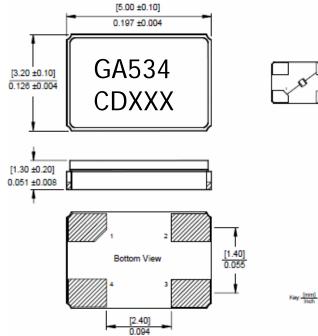
ELECTRICAL CHARACTERISTICS

	PARAMETER	VALUE							
	Operating Mode	Fundame	ntal	3 rd Overtone					
	Frequency Range	8.0 MHz to 40	0.0 MHz	24.0 MHz to 120.0 MHz					
	Crystal Cut	AT-Cut							
	Frequency Tolerance @ 25°C	±20 ppm, ±30 ppm, ±50 ppm							
	Frequency Stability Tolerance ¹	±15 ppm, ±20 ppm, ±30 ppm,							
ŝ	[Operating Temperature Range, Referenced to 25°C Reading]	±50 ppm, ±100 ppm, ±150 ppm							
RICAL PARAMETERS	Operating Temperature Range ¹	-40°C to +85°C [All Stability Codes] -40°C to +105°C [Stability Code 3, 5, 6, 7] -40°C to +125°C [Stability Code 5, 6, 7] -40°C to +150°C [Stability Code 7]							
	Equivalent Series Resistance	8.000 MHz - 9.999 MHz 10.000 MHz - 15.999 MHz 16.000 MHz - 40.000 MHz	150 Ohms maximum 60 Ohms maximum 50 Ohms maximum	24.000 MHz - 53.999 MHz 54.000 MHz - 120.000 MHz	150 Ohms maximun 100 Ohms maximun				
	Load Capacitance or Resonance Mode [See Ordering Information for More Options]	8pF, 12pF standard							
	Shunt Capacitance (C ₀)	3.0 pF typical, 5.0 pF maximum							
	Drive Level	10 μW typical, 100 μW maximum							
	Aging @ +25°C	±5 ppm/yr maximum							
	Insulation Resistance [@ DC 100V]	500M Ohms minimum							
	Storage Temperature Range	-40°C to +125°C							
	Reflow Condition, per JEDEC J-STD-020		+260°C maximum,	10 Seconds maximum					

1 See Ordering Information.

MECHANICAL SPECIFICATIONS

PACKAGE DRAWING



MARKING INFORMATION

- 1. GA534 CTS Model Series.
- 2. C CTS.
- 3. D Date code. See Table I for codes.
- 4. XXX Frequency code. [Reference CTS document 016-1450-0, Frequency Code Tables.]

NOTES

- 1. Complete CTS part number, frequency value, date code and manufacturing site code information must appear on reel and carton labels.
- 2. Termination pads (e4); barrier plating is nickel [Ni] with gold [Au] flash plate.
- Reflow conditions per JEDEC J-STD-020; 260°C 3. maximum, 10 seconds.

SUGGESTED SOLDER PAD GEOMETRY

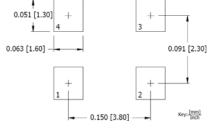


TABLE I – DATE CODE

\sim			MONTH		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	NOV	DEC
	YEAR				JAN	FLD	WIAK	AFK	WAT	NOC	JUL	AUG	JLF	001	NOV	DEC
2001	2005	2009	2013	2017	Α	В	С	D	E	F	G	Н	J	К	L	Μ
2002	2006	2010	2014	2018	Ν	Р	Q	R	S	Т	U	V	W	Х	Y	Z
2003	2007	2011	2015	2019	а	b	С	d	е	f	g	h	j	k	I	m
2004	2008	2012	2016	2020	n	р	q	r	S	t	u	v	w	х	у	Z