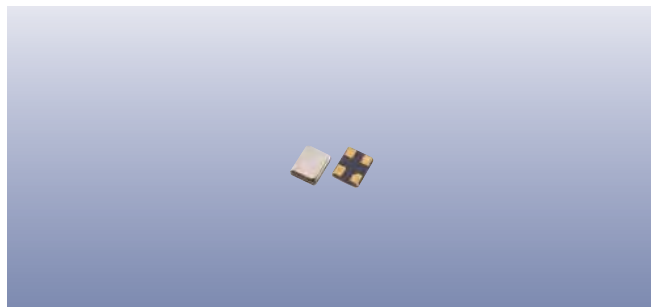
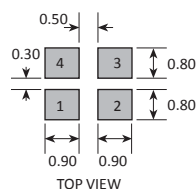


SOLDER PAD LAYOUT



PAD	CONNECTION
1	Crystal
2	Ground & lid
3	Crystal
4	Ground & lid

Features

- ▶ AEC-Q200 qualified for automotive apps
- ▶ Seam sealed for excellent long-term stability
- ▶ High reliability at low cost
- ▶ Metal lid can be grounded to minimise EMI
- ▶ Miniature for maximum space/weight saving

Example Applications

- ▶ Vehicle telematics
- ▶ Connected car
- ▶ Remote Keyless Entry (RKE)
- ▶ Audio - DAB / Bluetooth
- ▶ Camera

Specifications

Parameters	Product	Option Codes
	GRX-220	
Frequency range:	16.0 ~ 26.0MHz	■
Calibration tolerance:	±10ppm ■ ±15ppm □ ±20ppm □ Other values □	1 P 2 specify
Temperature stability:	±15ppm □ ±20ppm □ ±50ppm □ ±100ppm □ Other values □	P 2 5 C specify
Operating temperature range:	-40 to +85°C □ -40 to +125°C □ Other values □	4 A specify
Storage temperature range:	-40 to +125°C	■
Circuit condition:	8pF □ 10pF □ 12pF □ 16pF □ Other values □	M A B D specify
Oscillation mode:	Fundamental	■
Static capacitance (C ₀):	5pF max	■
Equivalent series resistance (max):	150Ω (16.0 ~ 19.99MHz) ■ 100Ω (20.0 ~ 26.0MHz) ■	
Ageing:	±3ppm max first year	■
Test drive level:	10μW typ, 100μW max	■
Soldering condition:	260°C, 10 sec x2 max	■

■ Standard. □ Optional - Please specify required code(s) when ordering

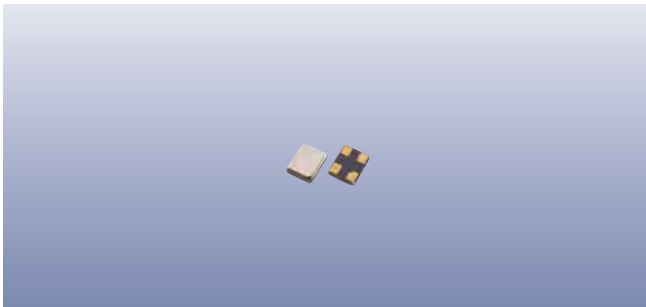
Ordering Information

Product name + option codes + frequency

eg: GRX-220/1P4DF 16.0MHz 10/15/-40+85/16-F

GRX-220/25ABF 24.0MHz 20/50/-40+125/12-F

Option code X (eg GRX-320/X) denotes a custom specification.



Packaging & Handling

Production quantities supplied on T&R, 3k pcs per reel.
Small quantities may be supplied on tape (no reel), or in bulk.

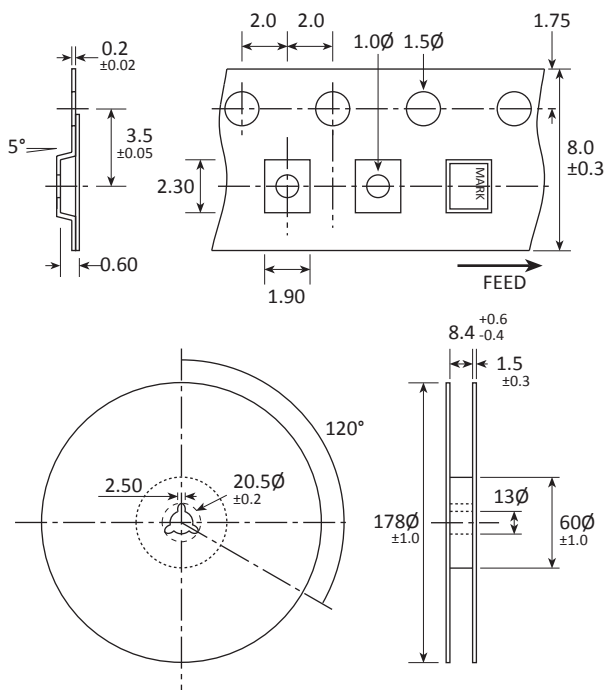
Marking

FREQUENCY
S DC

Marking type: Laser
DC = Date code in YM, eg "EJ" = Sep 2015

	A	B	C	D	E	F	G	H	J	K	L	M
Y	1	2	3	4	5	6	7	8	9	0		
M	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Tape & Reel Specification



Not to scale. Dimensional tolerances $\pm 0.1\text{mm}$ unless otherwise stated.

Construction

- Ceramic body with gold-plated pads
- Metal lid, seam sealed

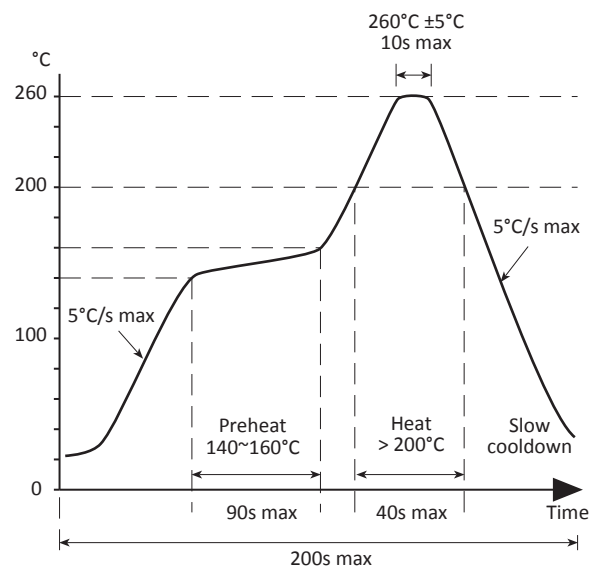
Composition



This product is lead-free, and is fully compliant with the RoHS directive 2011/65/EU



Soldering Profile



Maximum solder resistance: 260°C x 10 secs x 2.