

Specifications

| Parameters | Product | Option Codes |
|---------------------------------------|---|---|
| | GRX-320 | |
| Frequency range: | 12.0 ~ 40.0MHz | <input checked="" type="checkbox"/> |
| Calibration tolerance: | ±10ppm ±15ppm ±20ppm Other values | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| Temperature stability: | ±15ppm ±20ppm ±50ppm ±100ppm Other values | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| Operating temperature range: | -40 to +85°C -40 to +125°C Other values | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| Storage temperature range: | -40 to +125°C | <input checked="" type="checkbox"/> |
| Circuit condition: | 8pF 10pF 12pF 16pF Other values | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| Oscillation mode: | Fundamental | <input checked="" type="checkbox"/> |
| Static capacitance (C ₀): | 5pF max | <input checked="" type="checkbox"/> |
| Equivalent series resistance (max): | 150Ω (12.0 ~ 15.99MHz) 80Ω (16.0 ~ 19.99MHz) 60Ω (20.0 ~ 29.99MHz) 50Ω (30.0 ~ 34.99MHz) 40Ω (35.0 ~ 40.0MHz) | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> |
| Ageing: | ±3ppm max first year | <input checked="" type="checkbox"/> |
| Test drive level: | 10μW typ, 100μW max | <input checked="" type="checkbox"/> |
| Soldering condition: | 260°C, 10 sec x2 max | <input checked="" type="checkbox"/> |

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

Features

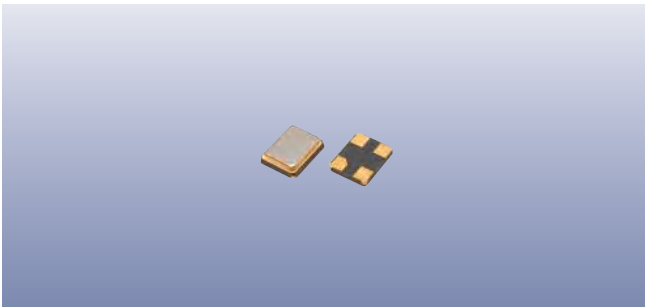
- ▶ AEC-Q200 qualified for automotive apps
- ▶ Seam sealed for excellent long-term stability
- ▶ High reliability at low cost
- ▶ Metal lid can be grounded to minimise EMI
- ▶ Miniature for maximum space/weight saving

Example Applications

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

Ordering Information

Product name + option codes + frequency
 eg: **GRX-320/PP4DF 13.560MHz** 15/15/-40+85/16-F
GRX-320/25ABF 27.0MHz 20/50/-40+125/12-F
 Option code X (eg GRX-320/X) denotes a custom specification.



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



Packaging & Handling

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

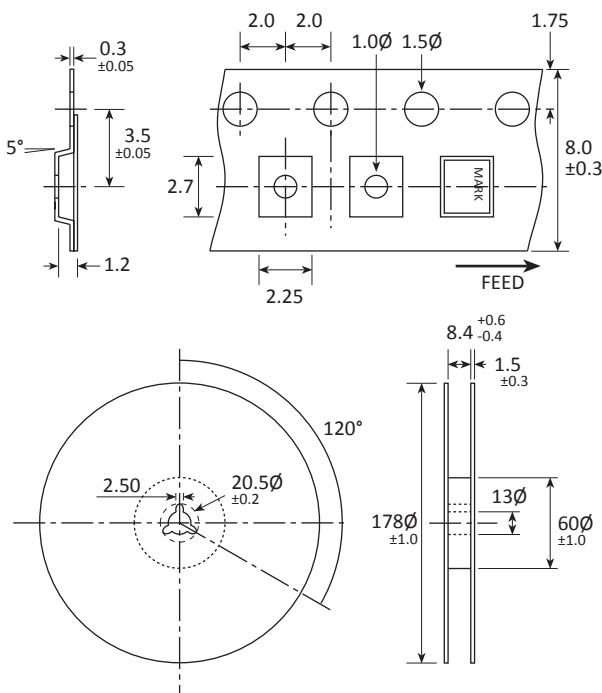
Marking

FREQUENCY
S DC

Marking type: Laser
DC = Date code in YM, as shown below
Example: "EJ" = Sep 2015

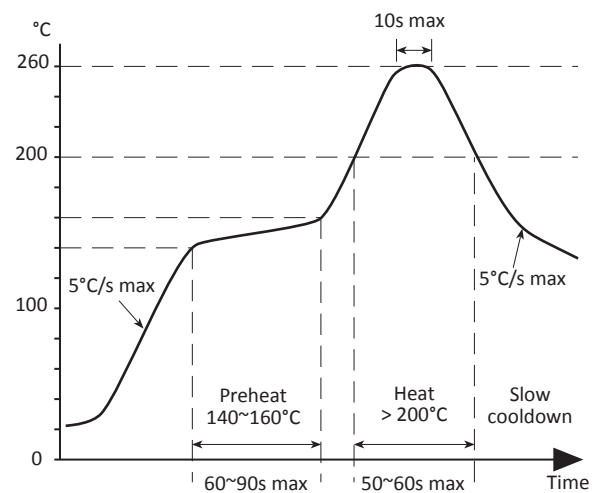
| | A | B | C | D | E | F | G | H | J | K | L | M |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Y | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |
| M | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

Tape & Reel Specification



Not to scale. Dimensional tolerances ±0.1mm unless otherwise stated.

Soldering Profile



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