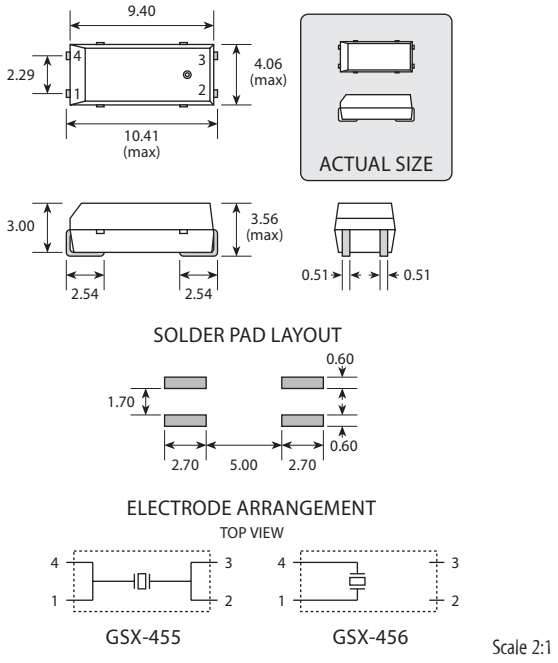
SM Crystal Low Frequency

GSX-455 & GSX-456





Features

- **Equivalents to Epson MC-405 & MC-406**
- **Plastic moulded surface mount package**
- **Miniature size for high density applications**
- **Supplied on tape and reel**

Standard Frequencies

Frequencies in kHz			
24.000	40.000	77.500	150.000
26.667	65.536	96.000	153.600
31.200	75.000	99.660	200.000
32.000	76.800	100.000	307.200
32.768	77.025	106.000	614.400
38.000	77.040	130.000	
38.400	77.056	131.072	

Ordering Information

Product name + frequency + specification (if non-standard)
eg: **GSX-455 38.40kHz**
GSX-456 76.80kHz ±50ppm
Option code X (eg GSX-455/X) denotes a custom specification.
Available on T&R - 2k pcs per reel.

Specifications

GSX-455: Electrical connection end to end

GSX-456: Electrical connection across one end

Parameters		Product 455	Product 456	Option Codes
Package:	GSX-455	■		
	GSX-456		■	
Frequency:	32.768kHz	■	■	
	24.0 ~ 350kHz	□	□	specify
	351 ~ 615kHz	□	□	specify
Calibration tolerance:	±20ppm	■	■	
	±50ppm	□	□	specify
	±100ppm	□	□	specify
Temperature stability:				
	-53ppm (-10 to +60°C)	■	■	
	-130ppm (-30 to +80°C)	■	■	
Operating temperature range:				
	-10 to +60°C	■	■	
	Other	□	□	specify
Operable temperature range:				
	-40 to +85°C	■	■	
Storage temperature range:				
	-55 to +125°C	■	■	
Turnover temperature (T_0):				
	+25°C ±5°C (32.768kHz)	■	■	
	+25°C ±8°C (24.0 ~ 350kHz)	■	■	
	+25°C ±15°C (351 ~ 615kHz)	■	■	
Frequency / temp coefficient:				
	-0.035 ±0.008ppm/°C^2 typ	■	■	
Circuit condition:	12.5pF	■	■	
	6.0 ~ 12.5pF	□	□	specify
Static capacitance (C_0):				
	1.0pF (32.768kHz)	■	■	
	0.95pF (24.0 ~ 350kHz)	■	■	
	0.90pF (351 ~ 615kHz)	■	■	
Motional capacitance (C_1):				
	3.0fF typ	■	■	
Equivalent series resistance (max):				
	50kΩ (32.768kHz)	■	■	
	50kΩ (24.0 ~ 350kHz)	■	■	
	20kΩ (351 ~ 615kHz)	■	■	
Ageing:	±5ppm max first year	■	■	
Drive level:	1.0µW typ	■	■	
Shock resistance:	±5ppm	■	■	
Soldering conditions:				
	240°C, 10sec max	■	■	

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

Tel: **+44 1460 256 100** Fax: **+44 1460 256 101** E-mail: **sales@golledge.com** Web: **www.golledge.com**

Golledge

20 Nov 1998