## X15 32.768 kHz SURFACE-MOUNT CRYSTAL

## **FEATURES**

- Ultra miniature package size for 32.768 kHz
- Extended temperature -40/+85°C for industrial applications
- $\bullet\,$  Applications : Wireless applications , Commercial and Industrial applications



Item	Symbol	Specification
Nominal Frequency	Fo	32.768 kHz
Cut		XY-cut
Operating temperature Range	То	-40° to +85°C
Frequency Tolerance at 25°C	Δf/F	± 20ppm standard (see options)
Temperature coefficient	ß	-0.040 ppm/°C² max
Load Capacitance (CL)	CL	12.5 pF standard (see options)
Equivalent Series Resistance	ESR	90 kΩ max.
Insulation Resistance	Ri	500 MΩ min. (at 100Vdc)
Drive Level	DL	$0.5\mu W$ max.
Aging	Δf/F	±3ppm max (at 25°C, first year)
Packing Unit		5000pcs / reel
Soldering Condition		260°C, 10 sec x2 max

## **OPTIONS & ORDERING INFORMATION**

X15-			32.768 kHz
	Freq. Tolerance	Load Capacitance	
	<b>10</b> = ±10 ppm	<b>6</b> = 6.0 pF	
	<b>20 =</b> ±20 ppm	<b>7</b> = 7.0 pF	
	<b>30</b> = ±30 ppm	9 = 9.0 pF	
	$50 = \pm 50 \text{ ppm}$	<b>12.5</b> = 12.5 pF	

## **OUTLINE DIMENSIONS**

