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## Product Change Notification

**PCN Publish Date:** 01/23/2006

**PCN#:** 240

**Change Title:** Product End of Life (EOL)

**Products Affected:**

**Model:** FSN

**Fox Part Numbers:** FSN327

593-0.032768-xxxx\*

\*xxxx = randomly generated number for specific parts. For an explanation of the Fox part numbers see the Fox Part Number Guide on the website:

<http://foxonline.com/onefamilytype.asp>

**Description of Change to the Customer:** In an effort to adapt to changing market conditions, Fox Electronics will be discontinuing the FSN: glass package, 32.768kHz, watch crystal, all load capacitances.

Suggested substitutions are listed in the table below:

### FSN RECOMMENDED SUBSTITUTIONS

Current P/N	Recommended Substitution
FSN327	FX135A-327 (Standard 12.5pF load)**
593-0.032768-xxxx	775-0.032768-xxxx

\*\*A 9pf version: FX135B-327, is also available.

(Note: We recommend a sample be evaluated in all applications before making a substitution.)

**Schedule of Change:** A last time buy date is scheduled for June 30, 2006, subject to available inventory quantities. If inventory is on hand after June 30, Fox will continue to support orders until inventory is depleted.

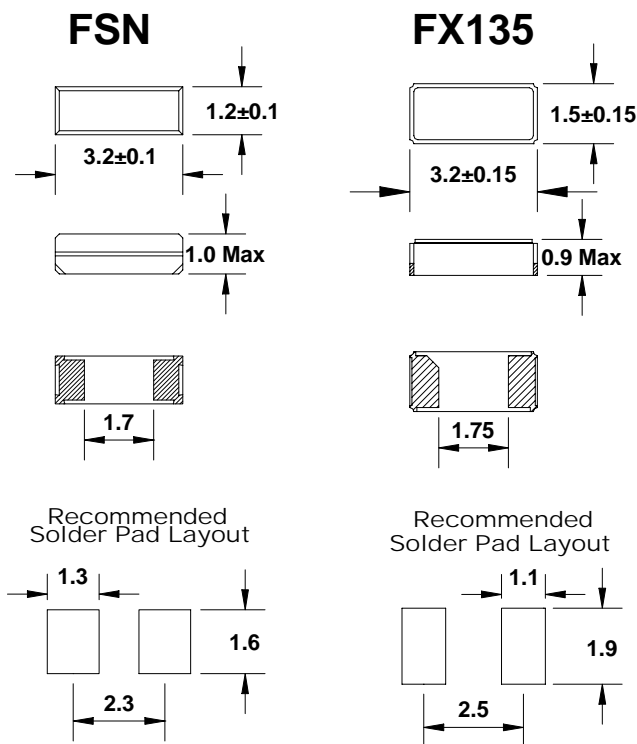
**Customer Impact and Response:** We sincerely hope this product discontinuance will have minimal impact on our customers. If you have any questions or need assistance in determining a suitable substitution, please email Fox Technical Support at [www.foxonline.com/email.htm](http://www.foxonline.com/email.htm) or call 239-693-0099.

**FSN AND FX135: SPECIFICATIONS AND DIMENSIONAL COMPARISON**  
01/24/2006

**SPECIFICATIONS**

Model	FSN	FX135
Frequency	32.768 kHz	32.768 kHz
Frequency Tolerance @ 25°C	±20 PPM	±20 PPM
Frequency Stability (Temperature Coefficient)	-0.045 PPM / (Δ°C) <sup>2</sup>	-0.04 PPM / (Δ°C) <sup>2</sup>
Temperature Range		
Turnover (T <sub>O</sub> )	+20°C ~ +30°C	+20°C ~ +30°C
Operating (T <sub>OPR</sub> )	-40°C ~ +85°C	-40°C ~ +85°C
Storage (T <sub>STG</sub> )	-55°C ~ +125°C	-55°C ~ +125°C
Equivalent Series Resistance (R <sub>S</sub> )	65 kΩ Max	70 kΩ Max
Load Capacitance (C <sub>L</sub> )	12.5 pF (Standard) 7pF (Optional)	12.5 pF (Standard) (Fox Part Number FX135A-327) 9pF (Optional) (Fox Part Number FX135B-327)
Insulation Resistance @ 100V <sub>DC</sub>	500 MΩ Min	500 MΩ Min
Drive Level	1.0 uW Max 0.1uW Typ.	1.0uW Max 0.1uW Typ.
Aging (per year)	±5 PPM Max	±3 PPM Max
Maximum Soldering Temp / Time	260°C / 10 Seconds	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1	1
Termination Finish	Au	Ni/Au
ROHS Compliant	Yes	Yes
Pb Free	Yes	Yes

**DIMENSIONS**



**FX135 on FSN solder pad**

