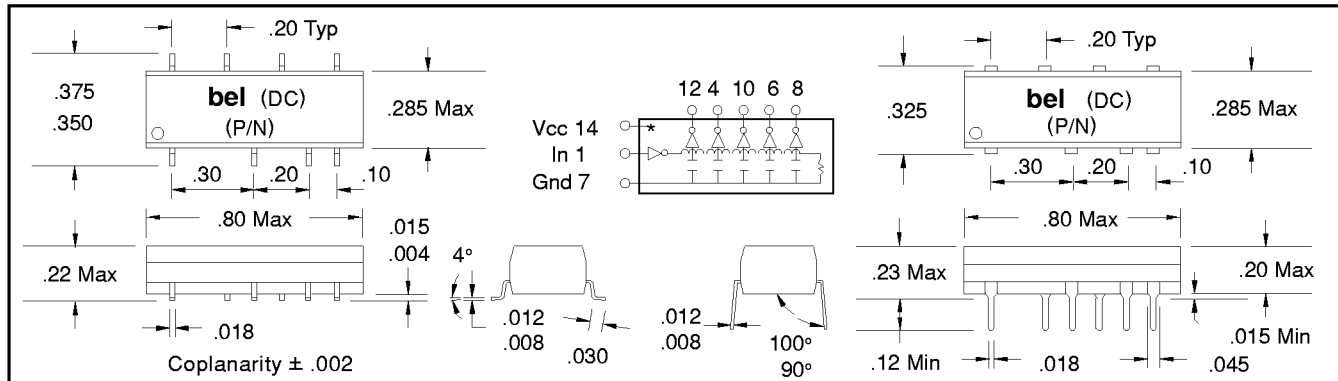


# 5 TAP LEADING EDGE CONTROL PRECISE DELAY MODULES

Cat 22-R2



## Part Numbers

| SMD          | Thru-Hole    | Total Delay | Delay per Tap | Rise Time |
|--------------|--------------|-------------|---------------|-----------|
| S497-0025-02 | A497-0025-02 | 25 ns       | 5 ns          | 3 ns      |
| S497-0030-02 | A497-0030-02 | 30 ns       | 6 ns          | 3 ns      |
| S497-0040-02 | A497-0040-02 | 40 ns       | 8 ns          | 3 ns      |
| S497-0050-02 | A497-0050-02 | 50 ns       | 10 ns         | 3 ns      |
| S497-0060-02 | A497-0060-02 | 60 ns       | 12 ns         | 3 ns      |
| S497-0070-02 | A497-0070-02 | 70 ns       | 14 ns         | 3 ns      |
| S497-0080-02 | A497-0080-02 | 80 ns       | 16 ns         | 3 ns      |
| S497-0090-02 | A497-0090-02 | 90 ns       | 18 ns         | 3 ns      |
| S497-0100-02 | A497-0100-02 | 100 ns      | 20 ns         | 3 ns      |
| S497-0125-02 | A497-0125-02 | 125 ns      | 25 ns         | 3 ns      |
| S497-0150-02 | A497-0150-02 | 150 ns      | 30 ns         | 3 ns      |
| S497-0200-02 | A497-0200-02 | 200 ns      | 40 ns         | 3 ns      |
| S497-0250-02 | A497-0250-02 | 250 ns      | 50 ns         | 3 ns      |

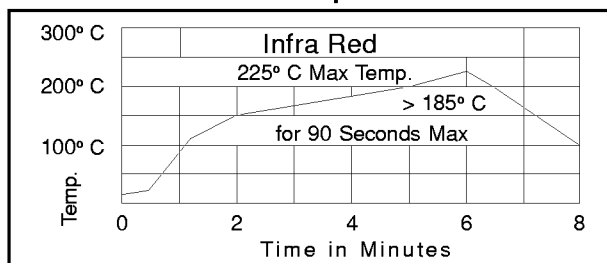
## Tolerances

Input to Taps  $\pm 1$  ns or 3 %, Whichever is Greater  
Delays measured @ 1.5 V levels on Leading Edge only  
with no loads on Taps  
Rise and Fall Times measured from 0.75 V to 2.4 V levels

## Drive Capabilities

|    |                |   |                   |
|----|----------------|---|-------------------|
| Nh | Logic 1 Fanout | - | 20 TTL Loads Max. |
| Nl | Logic 0 Fanout | - | 10 TTL Loads Max. |

## Recommended Temperature Profile



## Test Conditions @ 25°C

|      |                |                   |
|------|----------------|-------------------|
| Ein  | Pulse Voltage  | 3.2 Volts         |
| Trin | Rise Time      | 3.0 ns (10%-90%)  |
| PW   | Pulse Width    | 1.2 x Total Delay |
| PP   | Pulse Period   | 4 x Pulse Width   |
| Iccl | Supply Current | 35 ma Typical     |
| Vcc  | Supply Voltage | 5.0 Volts         |

## Electrical Characteristics

|      | Min.                                  | Max.             | Units   |
|------|---------------------------------------|------------------|---------|
| Vcc  | Supply Voltage                        | 4.75             | 5.25 V  |
| Vih  | Logic 1 Input Voltage                 | 2.0              | V       |
| Vil  | Logic 0 Input Voltage                 | 0.8              | V       |
| Ioh  | Logic 1 Output Current                | -1               | ma      |
| Iol  | Logic 0 Output Current                | 20               | ma      |
| Voh  | Logic 1 Output Voltage                | 2.7              | V       |
| Vol  | Logic 0 Output voltage                | 0.5              | V       |
| Vik  | Input Clamp Voltage                   | -1.2             | V       |
| Iih  | Logic 1 Input Current                 | 20               | ua      |
| Iil  | Logic 0 Input Current                 | -0.6             | ma      |
| Ios  | Short Circuit Output Current          | -60              | -150 ma |
| Icch | Logic 1 Supply Current                | 25               | ma      |
| Iccl | Logic 0 Supply Current                | 40               | ma      |
| Ta   | Operating Free Air Temperature        | 0°               | 70° C   |
| PW   | Min. Input Pulse Width of Total Delay | 40               | %       |
| d    | Maximum Duty Cycle                    | 50               | %       |
| Tc   | Temp. Coeff. of Total Delay (TD)      | 100 + (25000/TD) | PPM/°C  |

## Notes

Transfer molded for better reliability  
Compatible with TTL & DTL circuits  
Terminals: Electro-Tin plate phosphor bronze  
Performance warranty is limited to specified parameters listed  
SMD - Tape & Reel available:  
32mm Wide x 16mm Pitch, 500 pieces per 13" reel

## Other Delays and Tolerances Available Consult Sales

Specifications subject to change without notice.

### Corporate Office

**Bel Fuse Inc.**  
198 Van Vorst Street, Jersey City, NJ 07302-4496  
Tel: 201-432-0463  
Fax: 201-432-9542  
E-Mail: BelFuse@belfuse.com  
Internet: <http://www.belfuse.com>

### Far East Office

**Bel Fuse Ltd.**  
8F/8 Luk Hop Street  
San Po Kong  
Kowloon, Hong Kong  
Tel: 852-2328-5515  
Fax: 852-2352-3706

### European Office

**Bel Fuse Europe Ltd.**  
Preston Technology Management Centre  
Marsh Lane, Preston PR1 8UD  
Lancashire, U.K.  
Tel: 44-1772-556601  
Fax: 44-1772-888366