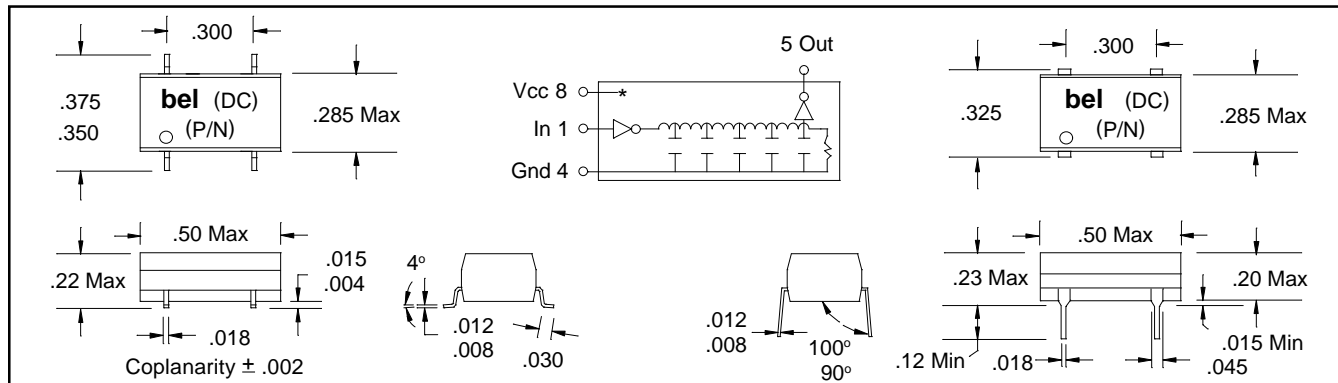


# 1 TAP LEADING EDGE CONTROL STANDARD DELAY MODULES

Cat 18-R2



### Part Numbers

| SMD          | Thru-Hole    | Time Delay | Tolerance | Rise Time |
|--------------|--------------|------------|-----------|-----------|
| S423-0005-06 | A463-0005-06 | 5 ns       | ± 1.0 ns  | 3 ns      |
| S423-0007-06 | A463-0007-06 | 7 ns       | ± 1.0 ns  | 3 ns      |
| S423-0010-06 | A463-0010-06 | 10 ns      | ± 1.5 ns  | 3 ns      |
| S423-0015-06 | A463-0015-06 | 15 ns      | ± 1.5 ns  | 3 ns      |
| S423-0020-06 | A463-0020-06 | 20 ns      | ± 1.5 ns  | 3 ns      |
| S423-0025-06 | A463-0025-06 | 25 ns      | ± 1.5 ns  | 3 ns      |
| S423-0030-06 | A463-0030-06 | 30 ns      | ± 2.0 ns  | 3 ns      |
| S423-0035-06 | A463-0035-06 | 35 ns      | ± 2.0 ns  | 3 ns      |
| S423-0040-06 | A463-0040-06 | 40 ns      | ± 2.0 ns  | 3 ns      |
| S423-0045-06 | A463-0045-06 | 45 ns      | ± 2.0 ns  | 3 ns      |
| S423-0050-06 | A463-0050-06 | 50 ns      | ± 2.5 ns  | 3 ns      |
| S423-0075-06 | A463-0075-06 | 75 ns      | ± 3.5 ns  | 3 ns      |
| S423-0100-06 | A463-0100-06 | 100 ns     | ± 5.0 ns  | 3 ns      |

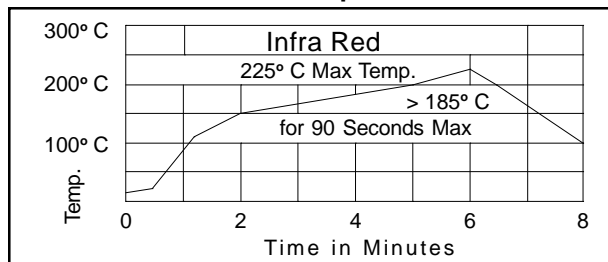
### Tolerances

Input to Output ± 2 ns or 5% ,Unless otherwise specified  
Delays measured @ 1.5 V levels on Leading Edge only  
with no loads on Output  
Rise and Fall Times measured from 0.75 V to 2.4 V levels

### Drive Capabilities

|    |                |   |                   |
|----|----------------|---|-------------------|
| Nh | Logic 1 Fanout | - | 10 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                 |                  | V       |
| Ioh  | Logic 1 Output Current                | 0.8              | ma      |
| Iol  | Logic 0 Output Current                | -1               | 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:  
24mm Wide x 12mm Pitch, 750 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  
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#### Far East Office

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8F/8 Luk Hop Street  
San Po Kong  
Kowloon, Hong Kong  
Tel: 852-2328-5515  
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#### European Office

**Bel Fuse Europe Ltd.**  
Preston Technology Management Centre  
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Tel: 44-1772-556601  
Fax: 44-1772-888366