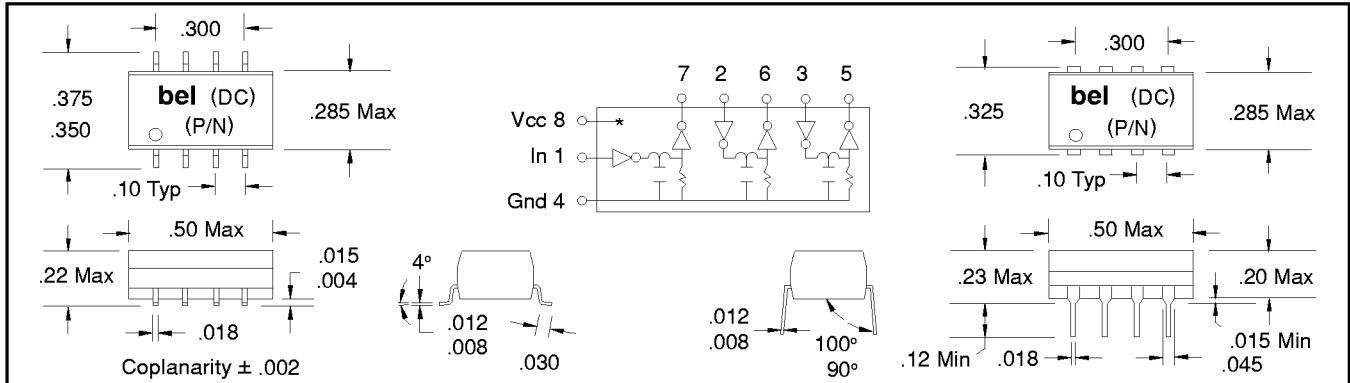


TRIPLE LINE LEADING EDGE CONTROL PRECISE DELAY MODULES

Cat 39-R0



Part Numbers

| SMD | Thru-Hole | Time Delay | Tolerance | Rise Time |
|--------------|--------------|------------|-----------|-----------|
| S493-0005-A3 | A493-0005-A3 | 5 ns | ± 1.0 ns | 3 ns |
| S493-0007-A3 | A493-0007-A3 | 7 ns | ± 1.0 ns | 3 ns |
| S493-0010-A3 | A493-0010-A3 | 10 ns | ± 1.0 ns | 3 ns |
| S493-0012-A3 | A493-0012-A3 | 12 ns | ± 1.0 ns | 3 ns |
| S493-0015-A3 | A493-0015-A3 | 15 ns | ± 1.0 ns | 3 ns |
| S493-0017-A3 | A493-0017-A3 | 17 ns | ± 1.0 ns | 3 ns |
| S493-0020-A3 | A493-0020-A3 | 20 ns | ± 1.0 ns | 3 ns |
| S493-0025-A3 | A493-0025-A3 | 25 ns | ± 1.0 ns | 3 ns |
| S493-0030-A3 | A493-0030-A3 | 30 ns | ± 1.0 ns | 3 ns |
| S493-0035-A3 | A493-0035-A3 | 35 ns | ± 1.1 ns | 3 ns |
| S493-0040-A3 | A493-0040-A3 | 40 ns | ± 1.2 ns | 3 ns |
| S493-0045-A3 | A493-0045-A3 | 45 ns | ± 1.4 ns | 3 ns |
| S493-0050-A3 | A493-0050-A3 | 50 ns | ± 1.5 ns | 3 ns |

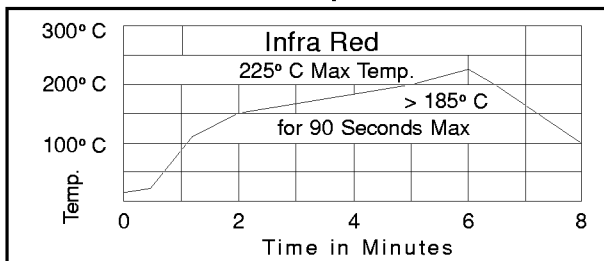
Tolerances

Input to Output ± 1 ns or 5% , Unless otherwise specified
Delays measured @ 1.5 V levels on Leading Edge only
with 15pf loads on Outputs
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 | 80 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 | ua |
| Ios | Short Circuit Output Current | -60 | -150 | ma |
| Icch | Logic 1 Supply Current | | 70 | ma |
| Iccl | Logic 0 Supply Current | | 90 | ma |
| Ta | Operating Free Air Temperature | 0° | 70° | C |
| PW | Min. Input Pulse Width of Total Delay | 100 | | % |
| 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
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