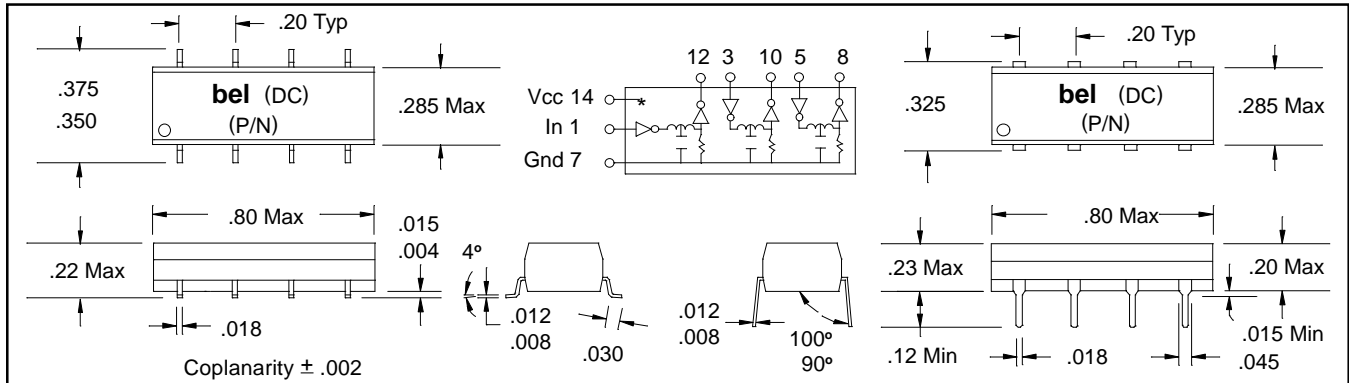




defining a degree of excellence

TRIPLE LINE LEADING EDGE CONTROL PRECISE DELAY MODULES

Cat 32-R0



Part Numbers

| SMD | Thru-Hole | Time Delay | Tolerance | Rise Time |
|--------------|--------------|------------|-----------|-----------|
| S497-0005-A3 | A497-0005-A3 | 5 ns | ± 1.0 ns | 3 ns |
| S497-0010-A3 | A497-0010-A3 | 10 ns | ± 1.0 ns | 3 ns |
| S497-0015-A3 | A497-0015-A3 | 15 ns | ± 1.0 ns | 3 ns |
| S497-0020-A3 | A497-0020-A3 | 20 ns | ± 1.0 ns | 3 ns |
| S497-0025-A3 | A497-0025-A3 | 25 ns | ± 1.0 ns | 3 ns |
| S497-0030-A3 | A497-0030-A3 | 30 ns | ± 1.0 ns | 3 ns |
| S497-0035-A3 | A497-0035-A3 | 35 ns | ± 1.1 ns | 3 ns |
| S497-0040-A3 | A497-0040-A3 | 40 ns | ± 1.2 ns | 3 ns |
| S497-0045-A3 | A497-0045-A3 | 45 ns | ± 1.4 ns | 3 ns |
| S497-0050-A3 | A497-0050-A3 | 50 ns | ± 1.5 ns | 3 ns |
| S497-0060-A3 | A497-0060-A3 | 60 ns | ± 1.8 ns | 4 ns |
| S497-0070-A3 | A497-0070-A3 | 70 ns | ± 2.1 ns | 4 ns |
| S497-0080-A3 | A497-0080-A3 | 80 ns | ± 2.4 ns | 4 ns |

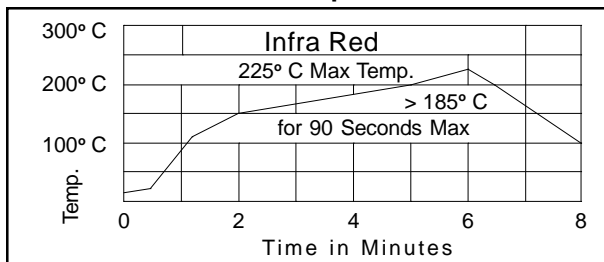
Tolerances

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 | ma |
| 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:
32mm Wide x 16mm Pitch, 500 pieces per 13" reel

Other Delays and Tolerances Available Consult Sales

Specifications subject to change without notice.

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