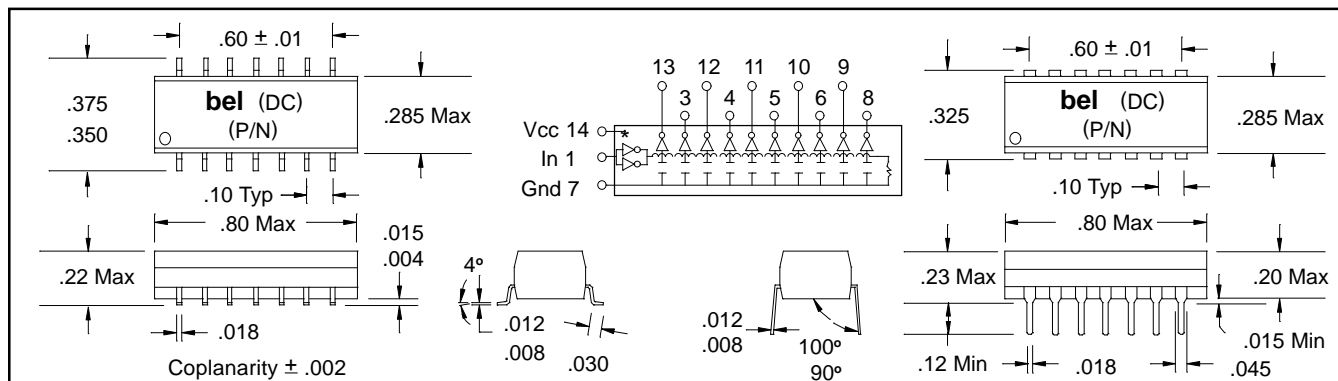


## Cat 11-R5



### Test Conditions @ 25°C

SMD	Thru-Hole	Total Delay	Delay per Tap	Rise Time
S422-0025-10	A447-0025-10	* 22.5 ns	$2.5 \pm 1$ ns	3 ns
S422-0030-10	A447-0030-10	* 27 ns	$3 \pm 1.5$ ns	3 ns
S422-0040-10	A447-0040-10	* 36 ns	$4 \pm 1.5$ ns	3 ns
S422-0050-10	A447-0050-10	50 ns	5 ns	3 ns
S422-0060-10	A447-0060-10	60 ns	6 ns	3 ns
S422-0070-10	A447-0070-10	70 ns	7 ns	3 ns
S422-0080-10	A447-0080-10	80 ns	8 ns	3 ns
S422-0090-10	A447-0090-10	90 ns	9 ns	3 ns
S422-0100-10	A447-0100-10	100 ns	10 ns	3 ns
S422-0125-10	A447-0125-10	125 ns	12.5 ns	3 ns
S422-0150-10	A447-0150-10	150 ns	15 ns	3 ns
S422-0200-10	A447-0200-10	200 ns	20 ns	3 ns
S422-0250-10	A447-0250-10	250 ns	25 ns	3 ns

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

	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		40	ua
Iil Logic 0 Input Current		-1.2	ma
Ios Short Circuit Output Current	-60	-150	ma
Icch Logic 1 Supply Current		50	ma
Iccl Logic 0 Supply Current		90	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		

Input to Taps  $\pm 2$  ns or 5% , Whichever is Greater  
 Tap to Tap  $\pm 2$  ns or 7% , 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  
 \* Ref. Delay from P13, Delay P1-P13 = 4.5 ns typical

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

The graph illustrates the temperature profile of an Infra Red treatment over an 8-minute period. The temperature starts at 0°C, begins to rise around 0.5 minutes, reaches a peak of 225°C at 6 minutes, and then decreases to 100°C by 8 minutes. The peak temperature is labeled '225° C Max Temp.' and the duration above 185°C is labeled '> 185° C for 90 Seconds Max'.

Time in Minutes	Temperature (°C)
0	0
0.5	25
1	100
2	150
4	200
6	225
8	100

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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