

# SO SMD 14 Pin Single Output Fast TTL Compatible Active Delay Line

## EPA3940-12 & EPA3940-RC

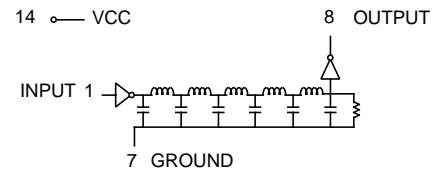
Add "-RC" after part number for RoHS Compliant

Output	
12 nS ± 1 nS	

• Delay Times referenced from input to leading edges at 25°C, 5.0 V •

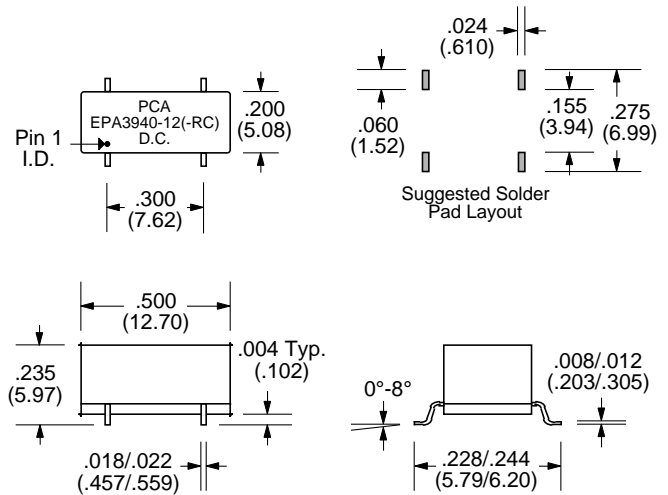
DC Electrical Characteristics					
Parameter	Test Conditions	Min	Max	Unit	
V <sub>OH</sub>	High-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IL</sub> = max. I <sub>OH</sub> = max	2.7		V
V <sub>OL</sub>	Low-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IH</sub> = min. I <sub>OL</sub> = max		0.5	V
V <sub>IK</sub>	Input Clamp Voltage	V <sub>CC</sub> = min. I <sub>I</sub> = I <sub>IK</sub>		-1.2	V
I <sub>IH</sub>	High-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 2.7V		20	µA
I <sub>IL</sub>	Low-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0.5V		-0.6	mA
I <sub>OS</sub>	Short Circuit Output Current	V <sub>CC</sub> = max. V <sub>OUT</sub> = 0.	-60	-150	mA
I <sub>CCH</sub>	High-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = OPEN		25	mA
I <sub>CCL</sub>	Low-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0		40	mA
T <sub>RO</sub>	Output Rise Time	T <sub>d</sub> ≤ 500 nS (0.75 to 2.4 Volts)		4	nS
N <sub>H</sub>	Fanout High-Level Output	V <sub>CC</sub> = max. V <sub>OH</sub> = 2.7V		20 TTL LOAD	
N <sub>L</sub>	Fanout Low-Level Output	V <sub>CC</sub> = max. V <sub>OL</sub> = 0.5V		10 TTL LOAD	

### Schematic



Recommended Operating Conditions				
Parameter	Test Conditions	Min	Max	Unit
V <sub>CC</sub>	Supply Voltage	4.75	5.25	V
V <sub>IH</sub>	High-Level Input Voltage	2.0		V
V <sub>IL</sub>	Low-Level Input Voltage		0.8	V
I <sub>IK</sub>	Input Clamp Current		-18	mA
I <sub>OH</sub>	High-Level Output Current		-1.0	mA
I <sub>OL</sub>	Low-Level Output Current		20	mA

### Package



Input Pulse Test Conditions @ 25° C				Unit
E <sub>IN</sub>	Pulse Input Voltage		3.2	Volts
P <sub>W</sub>	Pulse Width		12	nS
T <sub>RI</sub>	Pulse Rise Time (0.75 - 2.4 Volts)		2.0	nS
PRR	Pulse Repetition Rate		20	MHz
V <sub>CC</sub>	Supply Voltage		5.0	Volts

Notes :	EPA3940-12	EPA3940-12-RC
1. Assembly Process (Leadframe) (Solder Composition) (Assembly Solder)	SnPb	Sn SnPb (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JEDEC-J-STD-020C)	260°C 10 (+2/-0) seconds	260°C 10 (+2/-0) seconds
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC-J-STD-020C)	3 (168 hours, ≤30°C/60%RH)	4 (72 hours, ≤30°C/60%RH)
4. Weight	TBD grams	TBD grams
5. Packaging Information (Tube) (*Add "TR" to end of part number when placing order) (Tape & Reel)	44 pieces/tube TBD pieces/13" reel (*EPA3940-12-TR)	44 pieces/tube TBD pieces/13" reel (*EPA3940-12-RCTR)

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25