

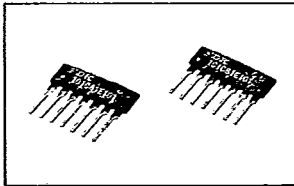
DELAY LINE MODULES

T-47-13

The delay line modules of FDK are the lumped constant elements consisting of low loss ferrite cores of original materials and laminated ceramic chip capacitors with a superb temperature coefficient. A fast rise and a low distortion rate are realized in these modules through a combination of electromagnetic and winding technologies deriving from many years of experience. In total

conformity with the MIL-STD-202E, the modules ensure a high level of reliability. Active delay line modules containing TTL logic elements are also available, and FDK designs and supplies a wide selection of delay line modules in response to customer's specific requirements.

●PASSIVE DELAY LINE C-61 SERIES (7pin-SIP type)



Features

- Capable of high-density mounting through ultra small, ultra thin single in-line structure
- Output 5 taps
- Low price

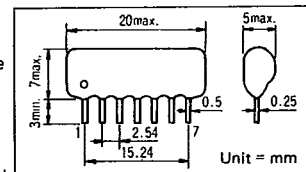
General specifications

Operating temperature : 0°C~+70°C
 Storage temperature : -30°C~+100°C
 Wave distortion : ±10% max.
 Temperature coefficient : 150PPM/°C
 Withstand voltage : DC 50V
 Insulation resistance : 100MΩ @DC50V

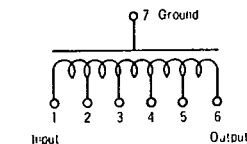
Model name coding

101 C61 E 101
 — Characteristic impedance (100Ω = 10 × 10¹ = 101)
 — No. of taps
 — Shape
 — Delay time (50ns. = 500, 100ns. = 101)

Shape and dimensions



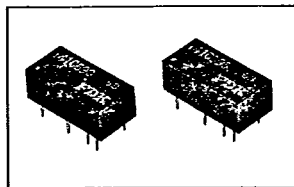
Pin location



Electrical characteristics

Model name	200C61E101	250C61E101	500C61E101	101C61E101	151C61E101	201C61E101	251C61E101	500C61E201	25061E201	500C61E201	101C61E201	151C61E201	201C61E201	200C61E301	250C61E301	500C61E301	101C61E301
Total delay time Td(ns.) ±5%	20 ± 2.0	25 ± 3.0	50 ± 3.0	100	150	200	250	20 ± 2.0	25 ± 3.0	50 ± 3.0	100	150	200	20 ± 2.0	25 ± 3.0	50 ± 3.0	100
Delay time between taps(ns.)	4 ± 1.5	5 ± 1.5	10 ± 2.0	20 ± 3.0	30 ± 3.0	40 ± 3.0	50 ± 3.0	4 ± 1.5	5 ± 1.5	10 ± 2.0	20 ± 3.0	30 ± 3.0	40 ± 3.0	4 ± 1.5	5 ± 1.5	10 ± 2.0	20 ± 3.0
Rise time Tr(ns.)max.	7.5	9.0	17.0	34.0	52.5	65.0	90.0	7.5	9.0	17.0	34.0	52.5	65.0	7.5	9.0	17.0	34.0
Characteristic impedance Z0(Ω) ±10%	100	100	100	100	100	100	100	200	200	200	200	200	200	300	300	300	300

●ACTIVE DELAY LINE C-59 SERIES (14pin-Dip type)



Features

- TTL with built-in IC
- Output 5 taps

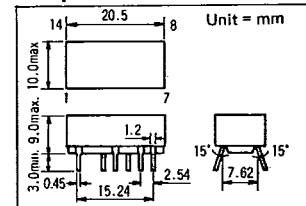
General specifications

Operating temperature : 0°C~+70°C
 Storage temperature : -55°C~+125°C
 Supply voltage : 5V±5% (+7V max.)

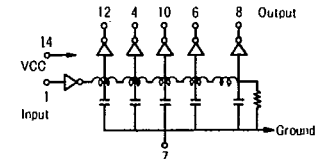
Model name coding

101 C59 S
 — Built-in IC (S: 74S04, LS: 74LS04)
 — Shape
 — Delay time (50ns. = 500, 100ns. = 101)

Shape and dimensions



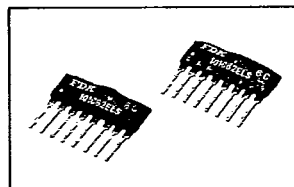
Pin location



Electrical characteristics

Model name	200C59S	250C59S	500C59S	750C59S	101C59S	151C59S	201C59S	251C59S	500C59LS	750C59LS	101C59LS	151C59LS	201C59LS	251C59LS
Total delay time Td(ns.) ±5%	20 ± 2.0	25 ± 2.0	50	75 ± 4.0	100	150	200	250	50	75 ± 4.0	100	150	200	250
Delay time between taps(ns.)	4 ± 2.0	5 ± 2.0	10 ± 2.0	15 ± 2.5	20 ± 3.0	30 ± 3.0	40 ± 3.0	50 ± 3.0	10 ± 3.0	15 ± 3.0	20 ± 3.0	30 ± 4.0	40 ± 4.0	50 ± 5.0
Rise time Tr(ns.)max.	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Built-in IC	74S04	74S04	74S04	74S04	74S04	74S04	74S04	74LS04	74LS04	74LS04	74LS04	74LS04	74LS04	74LS04

●ACTIVE DELAY LINE C-62 SERIES (8pin-SIP type)



Features

- TTL with built-in IC
- Capable of high-density mounting through ultra small, ultra thin single-line structure
- Output 5 taps
- Low price

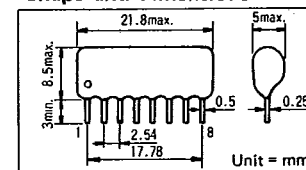
General specifications

Operating temperature : 0°C~+70°C
 Storage temperature : -30°C~+100°C
 Supply voltage : 5V±5% (+7V max.)

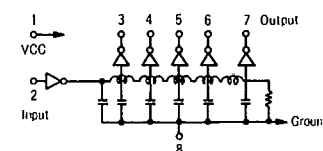
Model name coding

101 C62 E S
 — Built-in IC (S: 74S04, LS: 74LS04)
 — No. of taps
 — Shape
 — Delay time (50ns. = 500, 100ns. = 101)

Shape and dimensions



Pin location



Electrical characteristics

Model name	200C62ES	250C62ES	500C62ES	750C62ES	101C62ES	151C62ES	201C62ES	251C62ES	500C62ELS	750C62ELS	101C62ELS	151C62ELS	201C62ELS	251C62ELS
Total delay time Td(ns.) ±5%	20 ± 2.0	25 ± 2.0	50	75 ± 4.0	100	150	200	250	50	75 ± 4.0	100	150	200	250
Delay time between taps(ns.)	4 ± 2.0	5 ± 2.0	10 ± 2.0	15 ± 2.5	20 ± 3.0	30 ± 3.0	40 ± 3.0	50 ± 3.0	10 ± 3.0	15 ± 3.0	20 ± 3.0	30 ± 4.0	40 ± 4.0	50 ± 5.0
Rise time Tr(ns.)max.	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Built-in IC	74S04	74S04	74S04	74S04	74S04	74S04	74S04	74LS04	74LS04	74LS04	74LS04	74LS04	74LS04	74LS04