

## DNA SERIES

### Diode Terminator

Low parasitics, fast reverse recovery time, and a low forward voltage characteristic make KOA's DNA Schottky diode network an excellent bus terminator for very high speed I/O. This network offers the designer a single package solution to address overshoot and undershoot problems, ringing, and bus reflections that are common to high speed I/O. Today these networks are commonly used to optimize bus performance in high end computers, external data storage peripherals, LAN networks, and many other applications where high transfer rates are necessary.

#### Features

- Negligible reverse recovery time
- Low capacitance
- Low forward voltage drop
- 18-channel terminator in a single package
- Resolved bus impedance mismatch

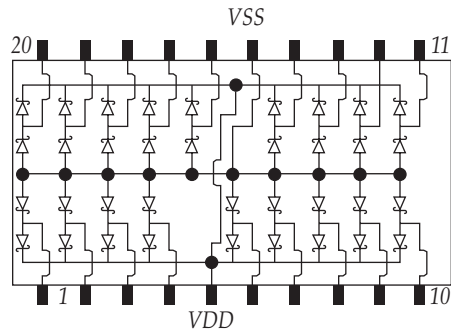
#### Applications

- Termination of data/control signals @  $\geq 66$  MHz
- Dynamic RAM bus termination
- RISC architecture

#### Electrical Characteristics

- Supply Voltage (VDD) . . . . . -3V to +7V
- Channel Clamp Current . . . . .  $\pm 50$ mA
- Package Power Rating @ 70°C . . . . . 1W
- Operating Temperature . . . . . 0°C to +70°C
- Storage Temperature . . . . . -65°C to +150°C
- Forward Voltage (to VDD @ 50ma) . . . . . 0.55V to 0.90V
- Forward Voltage (to GND @ 50ma) . . . . . 0.55V to 0.85V
- Reverse Recovery Time (@ 50ma) . . . . . <400ps
- Channel Leakage ( $0 < V_{in} < V_{DD}$ ) . . . . . 0.1 $\mu$ A to 5 $\mu$ A
- Input Capacitance ( $I_f = 1$ MHz,  $V_{in} = 2.5v$ ) . . . . . 5pF
- ESD Protection . . . . . 4KV min.

#### Circuit Schematic



#### Available Pin Configurations

$n$  = Number of Pins  
See physical configurations on page G-5 for available pin/package configurations.

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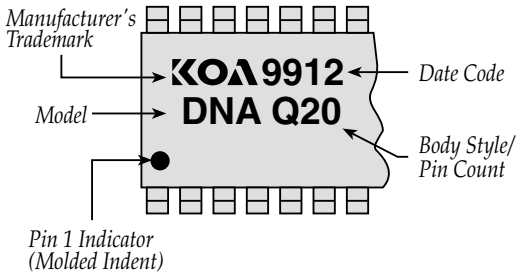
### Physical Configurations

<i>Body Style</i>	<i>Resistance Pin Count</i>
Wide SOIC . . . . .	20
QSOP . . . . .	20
TSSOP . . . . .	20

### Mechanical Characteristics

<i>Item</i>	<i>Material</i>
Substrate . . . . .	Silicon
Resistor material. . . . .	TaN
Passivation. . . . .	Glass

### Part Marking



### Ordering Information

<b>DNA</b>	<b>Q</b>	<b>20</b>	<b>B</b>
<i>Circuit Type</i>	<i>Body Style</i>	<i>Number of Pins</i>	<i>Packaging</i>
	W = Wide SOIC Q = QSOP T = TSSOP	20-24 See above table	B = 13" Embossed Plastic Tape & Reel, see Packaging Section for details

