

## DN5 SERIES

### Diode Terminator

Low parasitics, fast reverse recovery time, and a low forward voltage characteristic make KOA's DN5 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

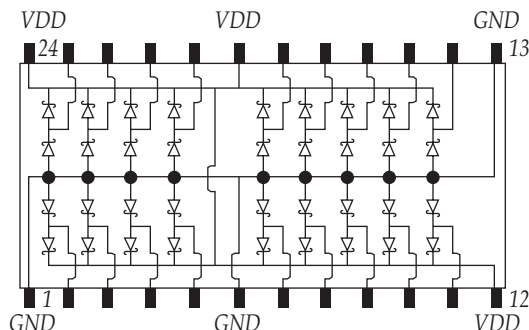
Reverse Recovery  
Time (@ 50ma) ..... <400ps

Channel Leakage  
( $0 < V_{in} < V_{DD}$ ) ..... 0.1 $\mu$ A to 5 $\mu$ A

Input Capacitance  
( $I_f = 1$ MHz,  
 $V_{in} = 2.5$ v) ..... 5pF

ESD Protection ..... 4KV min.

#### Circuit Schematic



#### Available Pin Configurations

$n$  = Number of Pins (24)  
See physical configurations on page G-3  
for available pin/package configurations.

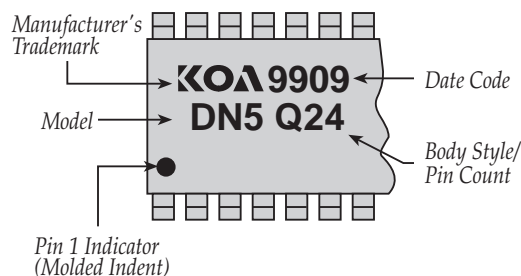
## Physical Configurations

<i>Body Style</i>	<i>Resistance Pin Count</i>
QSOP . . . . .	24
TSSOP . . . . .	24
Die Pack * . . . . .	24

## Mechanical Characteristics

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

## Part Marking



\* See page J-6 for preliminary Die Pack specifications.

## Ordering Information

<b>DN5</b>	<b>Q</b>	<b>24</b>	<b>B</b>
<i>Circuit Type</i>	<i>Body Style</i>	<i>Number of Pins</i>	<i>Packaging</i>
	Q = QSOP T = TSSOP 6 = 0.6 mm Die Pack 5 = 0.5 mm Die Pack 4 = 0.4 mm Die Pack	24 See above table	B = 13" Embossed Plastic Tape & Reel, see Packaging Section for details