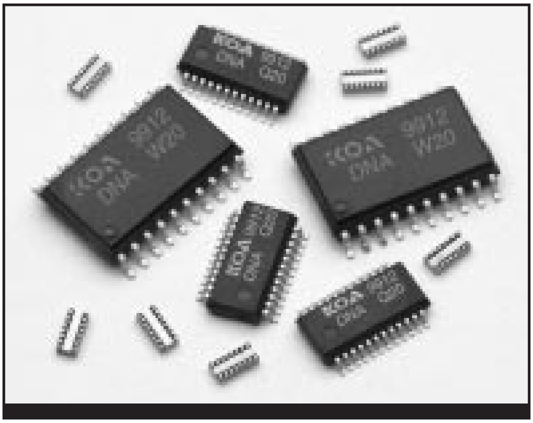


DNA SERIES

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

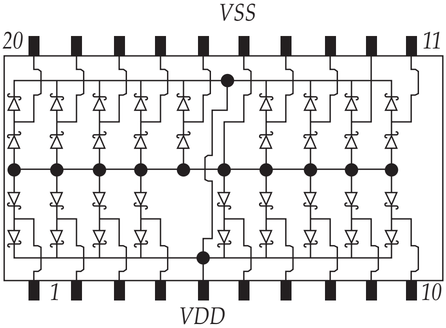
Applications

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

Electrical Characteristics

Supply Voltage (VDD)	-.3V to +7V
Channel Clamp Current	±50mA
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<Vin<VDD)	0.1µA to 5µA
Input Capacitance (If = 1MHz, Vin = 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.

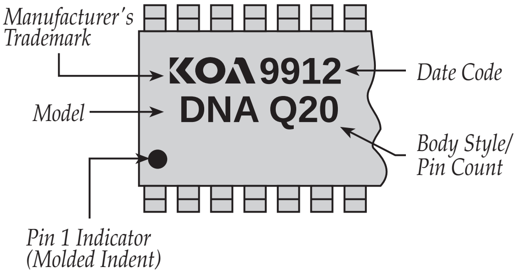
Physical Configurations

Body Style	*Resistance Pin Count*
Wide SOIC	20
QSOP	20
TSSOP	20
Die Pack *	24

Mechanical Characteristics

Item	*Material*
Substrate	Silicon
Resistor material	TaN
Passivation	Glass

Part Marking



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

Ordering Information

DNA	Q	20	B
Circuit Type	*Body Style*	*Number of Pins*	*Packaging*
	W = Wide SOIC Q = QSOP T = TSSOP 6 = 0.6 mm Die Pack 5 = 0.5 mm Die Pack 4 = 0.4 mm Die Pack	20-24 See above table	B = 13" Embossed Plastic Tape & Reel, see Packaging Section for details