

SCHOTTKY DIODE TERMINATION NETWORK

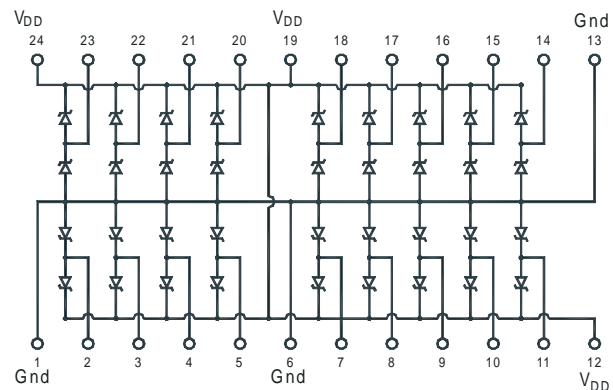
DNR SERIES



- Effective termination for both controlled and uncontrolled line impedances
- Reduces overshoot and undershoot for all types of datalines
- Suitable for high speed memory bus applications
- 36 Schottky Diodes integrated in a single package provide fast turn-on and reverse recovery characteristics
- Available in a 24-pin QSOP package reducing board space and cost

The IRC QDN001 is a low power/low noise integrated Schottky diode network solution for reducing inflections on high speed datalines. Each integrated diode network supports up to 18 termination lines with simultaneous clamping both to ground and the V_{DD} rail. This highly integrated network offers the most effective termination for all high speed data lines. Superior performance and reliability is achieved using internal gold interconnect metallization.

The QDN001 is available in an industry standard QSOP package, reducing board space while providing a low cost termination solution.



SPECIFICATIONS

PARAMETER	RATING
Supply Voltage V_{DD}	-0.3 to +7.0V
Channel Input Voltage V_{Signal}	-0.3V to $+(V_{DD}+0.3)$
Channel Clamp Current, I_{Clamp}	± 50 mA
Operating Temperature, T	0°C to +70°C
Storage Temperature, T_s	-65°C to +150°C
Power Dissipation Per Channel, P_d	100mW
Package Power Rating at 70°C, P_{max}	1.00 Watt (max)

DIODE CHARACTERISTICS (0°C to 70°C)

PARAMETER	CONDITION	TYPICAL
Diode Forward Voltage	$I_f = 10$ mA	0.5V
	$I_f = 50$ mA	0.8V
Channel Leakage	$0 < V_{in} < V_{DD}$	0.1 μ A
Input Capacitance	$f = 1$ MHz, $V_{in} = 2.5$ V $V_{DD} = 5$ V, $T_a = 25^\circ$ C	5pF

HOW TO ORDER

Part Number: DNR - QDN001