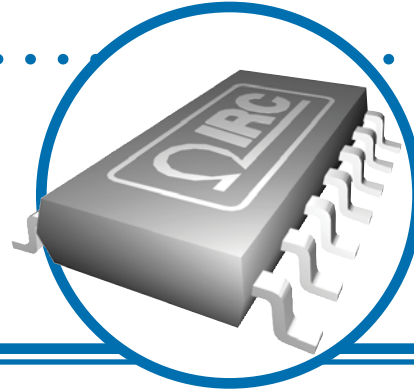


Low Capacitance TVS Diode Array

QDN004LF Series

- Protects up to 8 lines with ESD protection > 40 kV
- 500 Watts peak pulse power per Line (tp=8/20µs)
- Available in multiple voltage types: 3.3V to 36V
- Unidirectional & bidirectional configurations
- Low capacitance: 15pF
- RoHS compliant



Applications

Wireless Communication Circuits
RS-422, RS-432, RS-485
Low Voltage ASICs
Ethernet 10/100 Base-T

IEC Compatibility

61000-4-2 (ESD): Air - 15kV, Contact - 8kV
61000-4-4 (EFT): 40A - 5/50ns
61000-4-5 (Surge): 12A, 8/20µs Level 1 (Line-Ground) and Level 2 (Line-Line)

Characteristic Data

	Rated Standoff Voltage V_{WM} (Volts)	Minimum Breakdown Voltage $V_{(BR)}$ (Volts)	Maximum Clamping Voltage $I_p = 1A$ (Volts)	Maximum Pulse Clamping Voltage $t_i - t_d$	Maximum Leakage Current @ V_{WM} I_D (µA)	Maximum Capacitance C $V=0$ $f = 1MHz$ (pF)	Voltage Temperature Coefficient $qV_{(BR)}$ (mV/°C)
QDN004LF-U03 QDN004LF-B03	3.3	4.5	7.0	20.0V @ 35.0A	125	15	-3
QDN004LF-U05 QDN004LF-B05	5.0	6.0	9.8	24.0V @ 42.0A	20	15	3
QDN004LF-U08 QDN004LF-B08	8.0	8.5	13.4	26.0V @ 30.0A	10	15	9
QDN004LF-U12 QDN004LF-B12	12.0	13.3	19.0	33.0V @ 21.0A	2	15	16
QDN004LF-U15 QDN004LF-B15	15.0	16.7	25.5	39.0V @ 15.0A	2	15	17
QDN004LF-U24 QDN004LF-B24	24.0	26.7	40.0	57.0V @ 10.0A	2	15	26
QDN004LF-U36 QDN004LF-B36	36.0	40.0	53.0	72.0V @ 7.0A	2	15	36

General Note

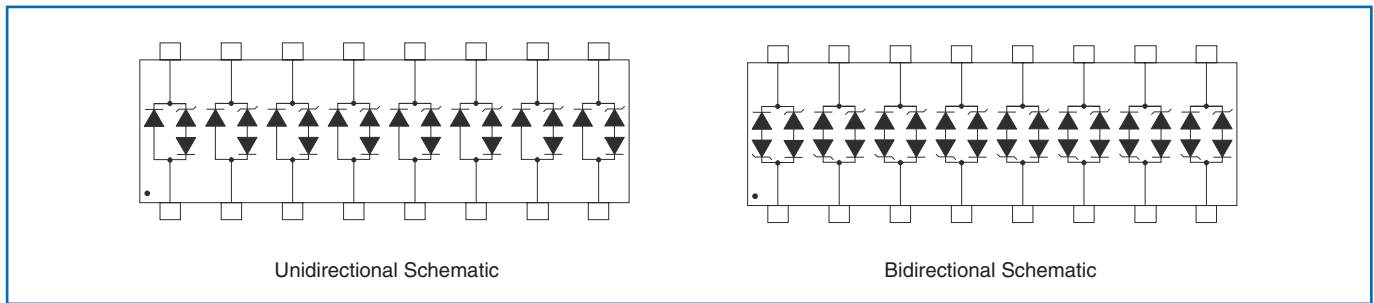
IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

Low Capacitance TVS Diode Array

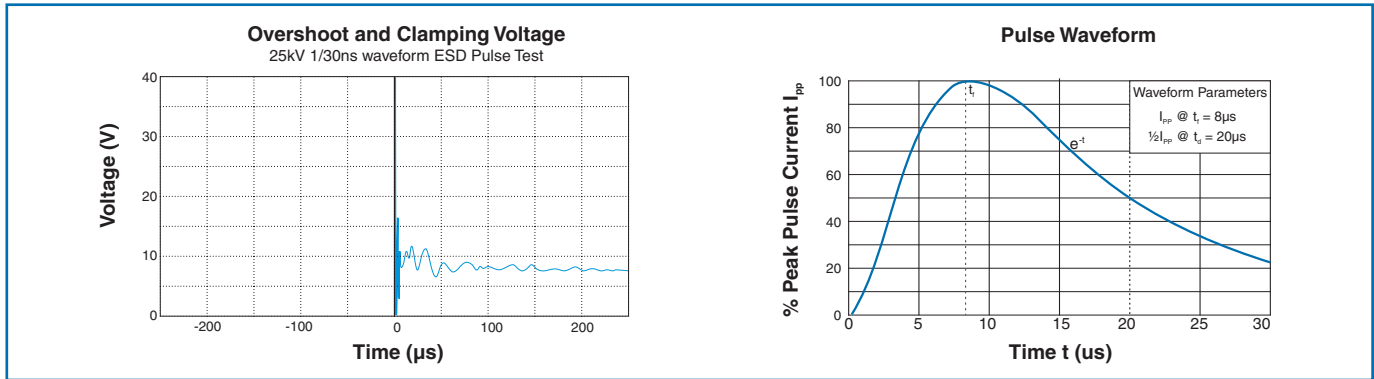
Maximum Ratings

Peak Pulse Power ($t_p = 8/20\mu s$)	Operating Temperature	Storage Temperature	Forward Voltage 50mA 300 μs - Square Wave	Solder Temperature (10 seconds)
P_{PP}	T_J	T_{STG}	V_F	T_{\parallel}
500W	-55°C to +150°C	-55°C to +150°C	1.5	260°C

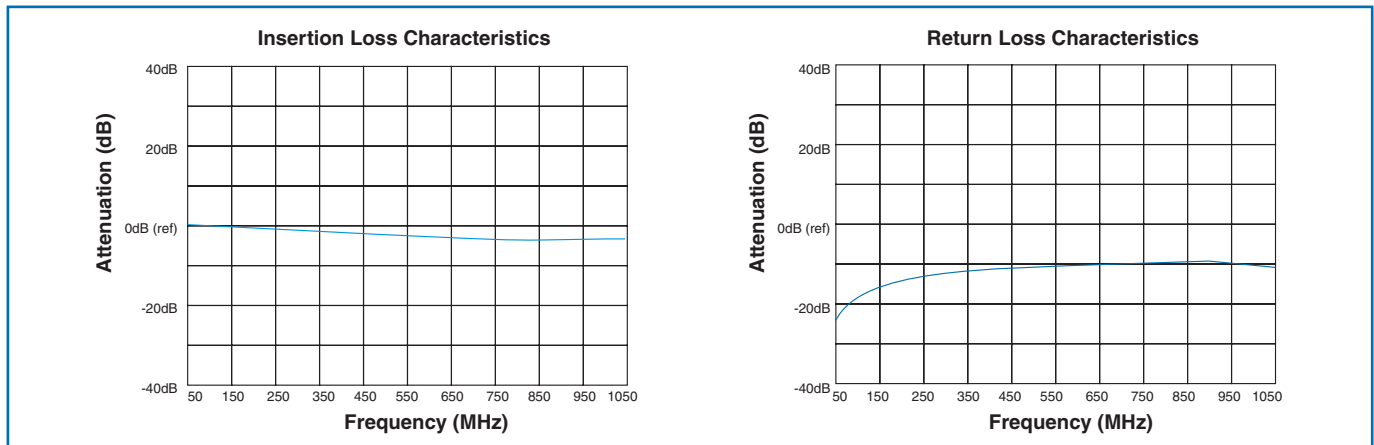
Schematic Data



ESD Pulse Data

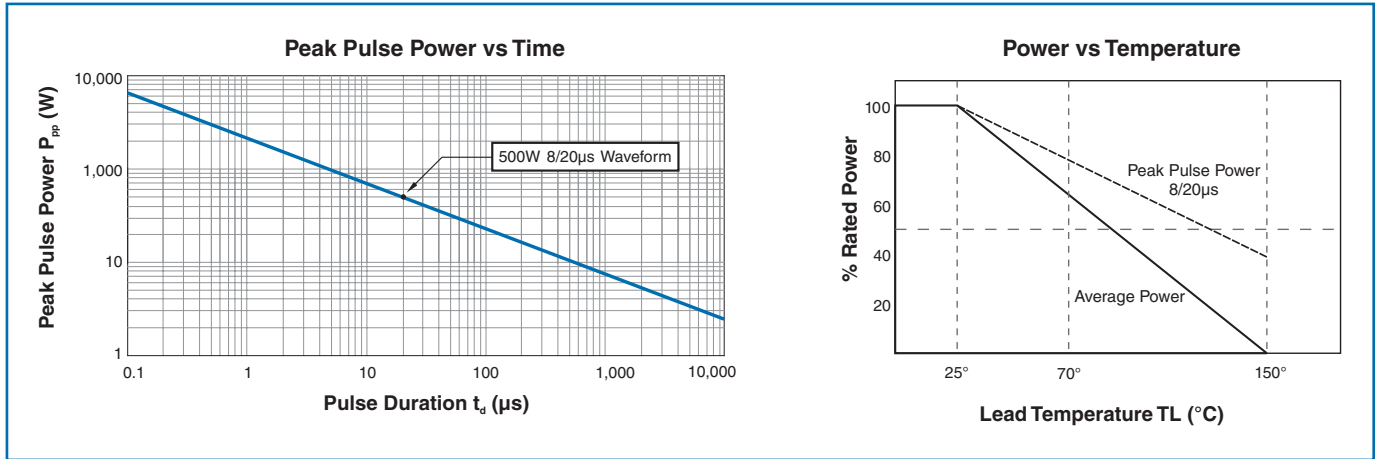


Loss Characteristic Data



Low Capacitance TVS Diode Array

Power Rating Data



QDN004LF

D	0.390"±0.004
H	0.236"±0.008
E	0.153"±0.004
A	0.061"±0.007
C	0.008"±0.001

Notes:

- All dimensions exclude mold flash, end flash and metal burrs which shall not exceed 0.015" per side.
- Maximum lead coplanarity is 0.004".

Low Capacitance TVS Diode Array



Ordering Data

Prefix **DNR** - **QDN004** - **B** **05** - **T13**

Model
QDN004LF = 16-PIN TVS Array in a 16-Pin SOIC-N Package

Schematic
U = Unidirectional
B = Bidirectional

Characteristic Code
03 = 3.3V Standoff Voltage
05 = 5.0V Standoff Voltage
08 = 8.0 V Standoff Voltage
12 = 12.0V Standoff Voltage
15 = 15.0V Standoff Voltage
24 = 24.0V Standoff Voltage
36 = 36.0V Standoff Voltage

Packaging
BK = Tubes (48 count)
T07 = 7" Reel (1000 count)
T13 = 13" Reel (2500 count)