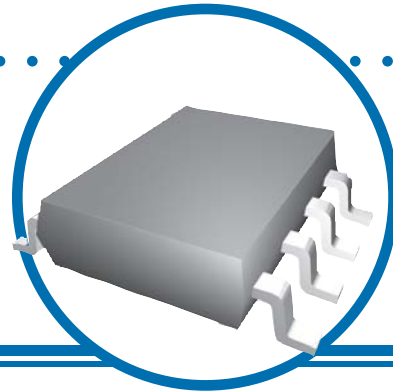


Surface Mount Bidirectional TVS Diode Array



QDN006LF Series

- Bidirectional protection for up to 4 lines data lines
- Low operating and clamping voltages
- Working voltages from 5 to 24V
- Low leakage current
- RoHS compliant



Applications

RS-232 and RS-432 Data Lines
 Desktop and Portable Computers
 Microprocessor Based Equipment
 LAN/WAN Communication Equipment
 Wireless Communication Equipment

IEC Compatibility

61000-4-2 (ESD): Air $\pm 15\text{kV}$, Contact $\pm 8\text{kV}$
 61000-4-4 (EFT): 40A - 5/50ns
 61000-4-5 (Lightning): 12A, 8/20 μs

Characteristic Data

	Rated Reverse Standoff Voltage V_{RWM} (Volts)	Minimum Reverse Breakdown Voltage $V_{(BR)}$ $I_t = 1\text{mA}$ (Volts)	Maximum Clamping Voltage V_C $I_p = 1\text{A}$ (Volts)	Maximum Pulse Current I_{PP} $t_p = 8/20\mu\text{s}$ (A)	Maximum Reverse Leakage Current I_R @ V_{RWM} (μA)	Maximum Capacitance C $V=0$ $f = 1\text{MHz}$ (pF)
QDN006LF-05	5.0	6.0	9.8	17.0	20	350
QDN006LF-12	12.0	13.3	19.0	12.0	1	120
QDN006LF-15	15.0	16.7	24.0	10.0	1	75
QDN006LF-24	24.0	26.7	43.0	5.0	1	50

Maximum Ratings

Peak Pulse Power ($t_p = 8/20\mu\text{s}$) P_{PP}	ESD Voltage IEC 61000-4-2 V_{ESD}	Operating Temperature T_j	Storage Temperature T_{STG}	Solder Temperature (10 seconds) T_{II}
300W	>25kV	-55°C to +150°C	-55°C to +150°C	260°C

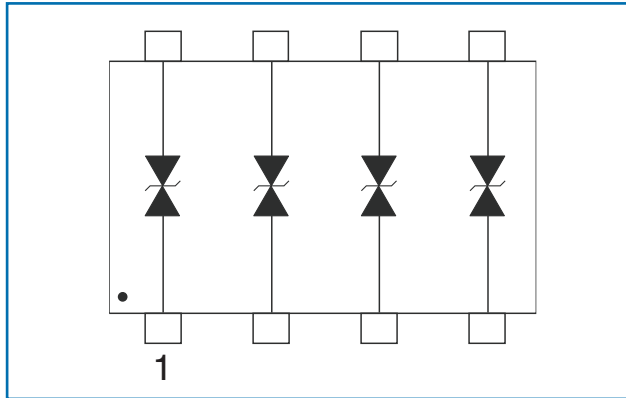
General Note

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.



Surface Mount TVS Diode Array

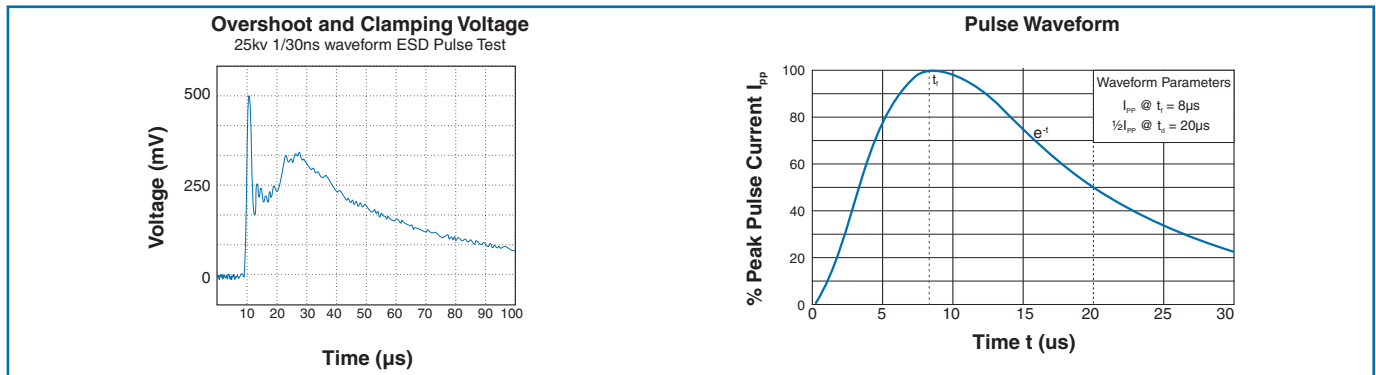
Schematic Data



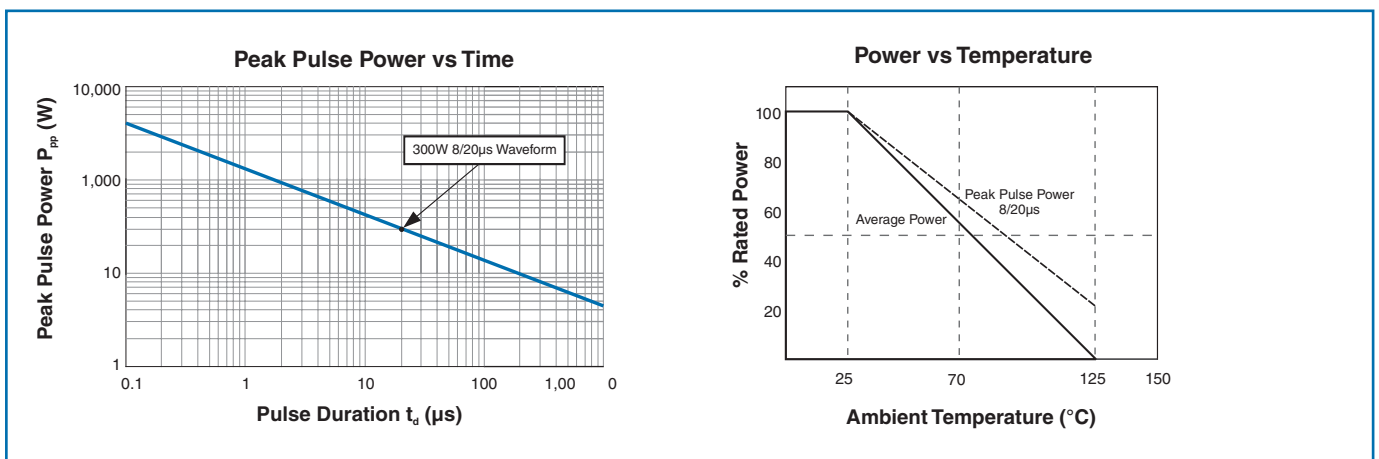
Discharge Data (IRC 61000-4-2)

Level	Initial Peak Current (A)	Peak Current 30ns (A)	Peak Current 60ns (A)	Test Voltage Contact (kV)	Test Voltage Air (kV)
1	7.5	4.0	8.0	2.0	2.0
2	15.0	8.0	4.0	4.0	4.0
3	22.5	12.0	6.0	6.0	8.0
4	30.0	16.0	8.0	8.0	15.0

ESD Pulse Waveform Data



Power Rating Data



Surface Mount TVS Diode Array

Physical Data

QDN006LF	
D	0.193"±0.004
H	0.236"±0.008
E	0.153"±0.004
A	0.061"±0.008
C	0.008"±0.002

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".

Ordering Data

Prefix **DNR** - **QDN006LF** - **05** - **T07**

Model
 QDN006LF = Bidirectional TVS Array in an 8-Pin SOIC-N Package

Characteristic Code
 05 = 5.0V Reverse Standoff Voltage
 12 = 12.0V Reverse Standoff Voltage
 15 = 15.0V Reverse Standoff Voltage
 24 = 24.0V Reverse Standoff Voltage

Packaging
 BK = Tubes (95 count)
 T07 = 7" Reel (500 count)