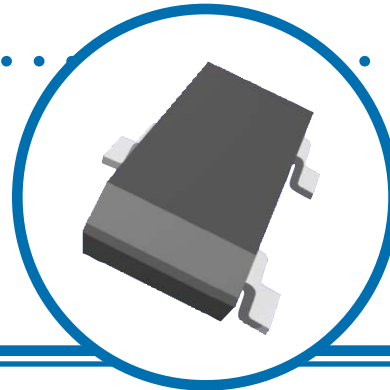


Surface Mount SOT-23 TVS Diode Array



QDN007LF Series

- ESD protection > 40KV
- 500 Watts peak pulse power per line ($t_p=8/20\mu s$)
- Available in multiple voltage types: 3.3V to 36V
- Unidirectional & bidirectional configurations
- RoHS compliant



Applications

Wireless Communication Circuits

RS-422, RS-432, RS-485

Portable Electronics

Cellular Phones

IEC Compatibility

61000-4-2 (ESD): Air - 15kV, Contact - 8kV

61000-4-4 (EFT): 40A - 5/50ns

61000-4-5 (Surge): 12A, 8/20 μs Level 2 (Line-Ground)
and Level 3 (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 $t_r - t_d$	Maximum Leakage Current @ V_{WM} I_D (μA)	Typical Capacitance C $V=0$ $f = 1MHz$ (pF)
QDN007LF-U03 QDN007LF-B03	3.3	4.0	6.5 7.0	10.9V @ 43.0A	125	500 300
QDN007LF-U05 QDN007LF-B05	5.0	6.0	9.8	13.5V @ 42.0A	20	350 210
QDN007LF-U08 QDN007LF-B08	8.0	8.5	13.4	16.9V @ 34.0A	10	250 150
QDN007LF-U12 QDN007LF-B12	12.0	13.3	19.0	25.9V @ 21.0A	2	150 90
QDN007LF-U15 QDN007LF-B15	15.0	16.7	24.0	30.0V @ 17.0A	1	100 60
QDN007LF-U24 QDN007LF-B24	24.0	26.7	43.0	49.0V @ 12.0A	1	88 63
QDN007LF-U36 QDN007LF-B36	36.0	40.0	51.0	76.8V @ 9.0A	1	80 60

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.

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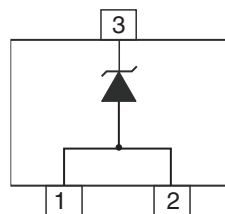
Surface Mount SOT-23 TVS Diode Array



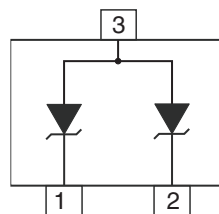
Maximum Ratings

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

Schematic Data

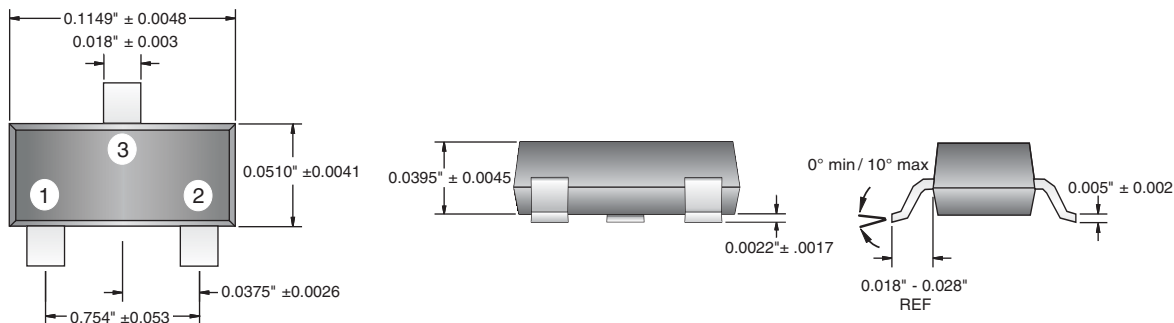


Unidirectional
Schematic
(view from top)



Bidirectional
Schematic
(view from top)

Physical Data



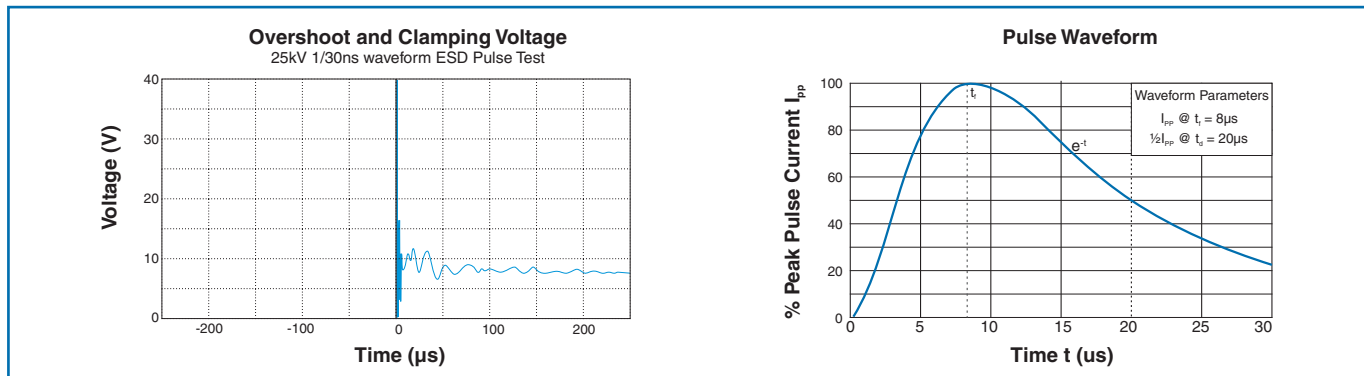
Notes.

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

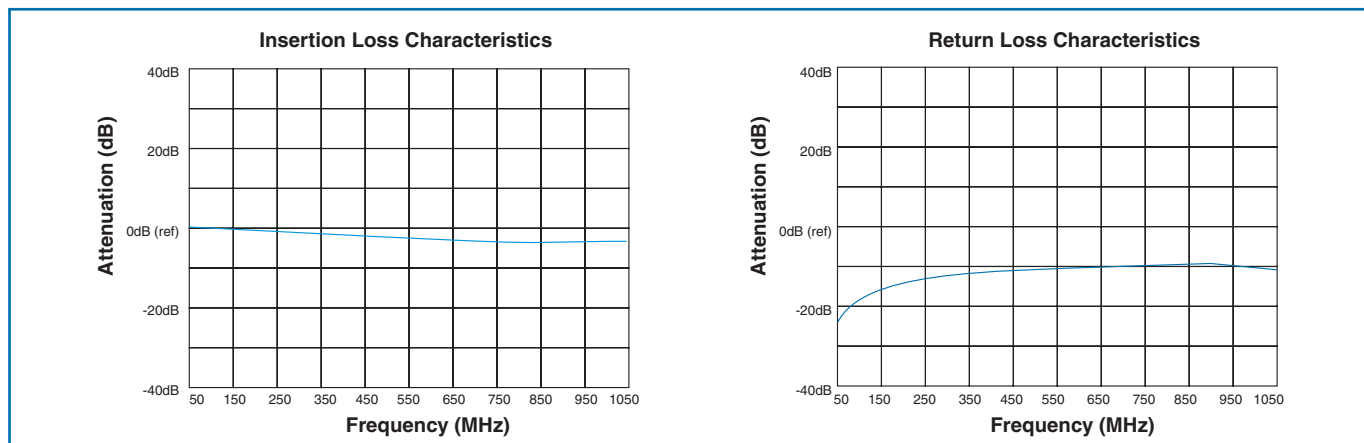
Surface Mount SOT-23 TVS Diode Array



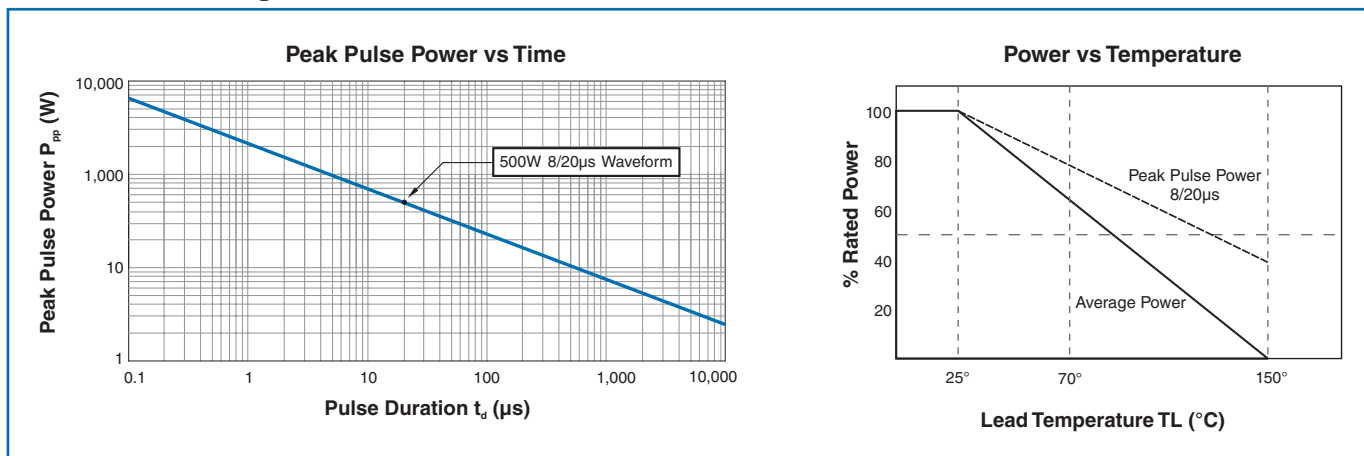
ESD Pulse Data



Loss Characteristic Data



Power Rating Data



Surface Mount SOT-23 TVS Diode Array



Ordering Data

Prefix **DNR** - **QDN007** - **B** **05** - **T13**

Model
QDN007LF = SOT23 TVS Diode Network with with 100% matte tin plated terminations

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
T07 = 7" Reel (3,000 count)
T13 = 13" Reel (10,000 count)