

Features

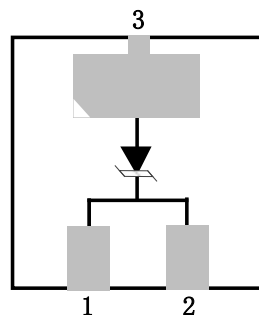
- 8100Watts peak pulse power (tp = 8/20μs)
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Protection one power line
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 180A (8/20μs)

**Applications**

- I/O Interfaces
- Power lines
- Cellular Handsets
- Portable Electronics
- Computers and Peripheral

Mechanical Data

- DFN2×2-3L package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration

DFN2 × 2-3L



Absolute Maximum Rating

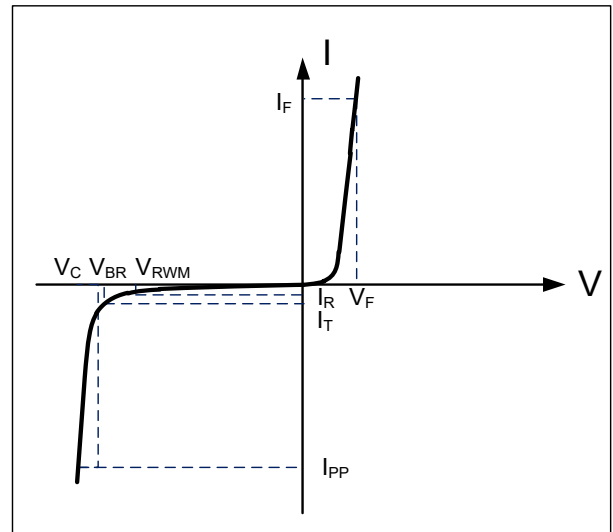
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	8100	Watts
Peak Pulse Current ($t_p=8/20\mu s$) (note1)	I_{PP}	180	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				24.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	26.5			V
Reverse Leakage Current	I_R	$V_{RWM}=24V, T=25^\circ C$			1	μA
Clamping Voltage	V_C	$I_{PP}=180A, t_p=8/20\mu s$		45		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		700		pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Note: 8/20 μs pulse waveform.



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

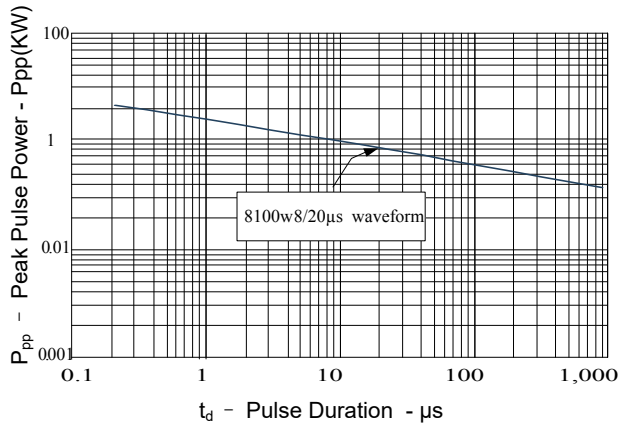


Figure 2: Power Derating Curve

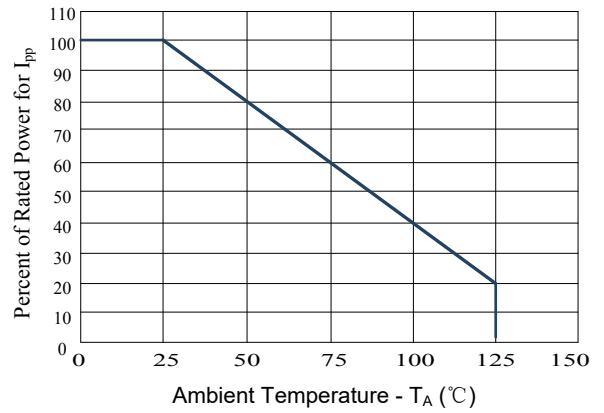


Figure3: Pulse Waveform

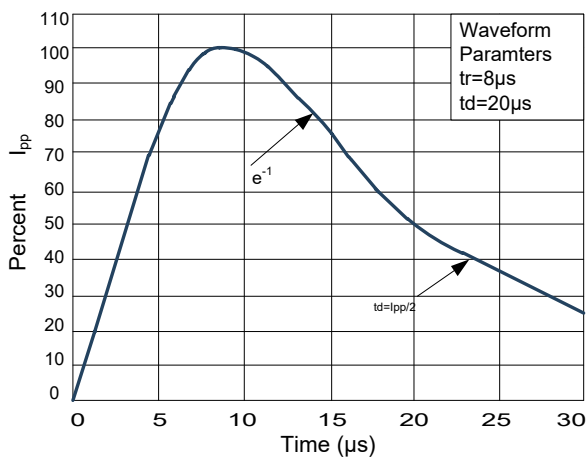
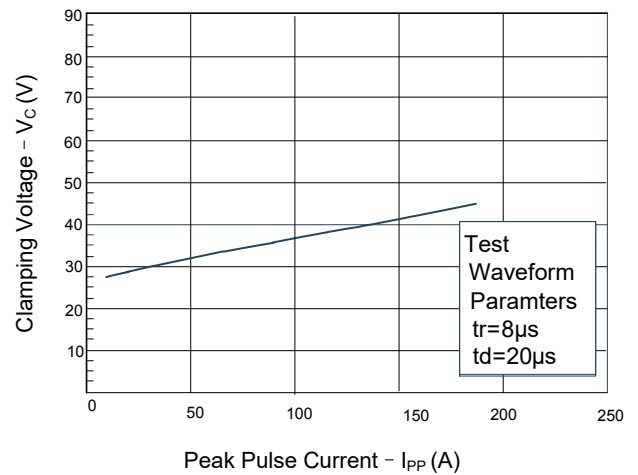
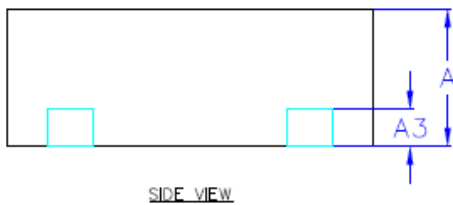
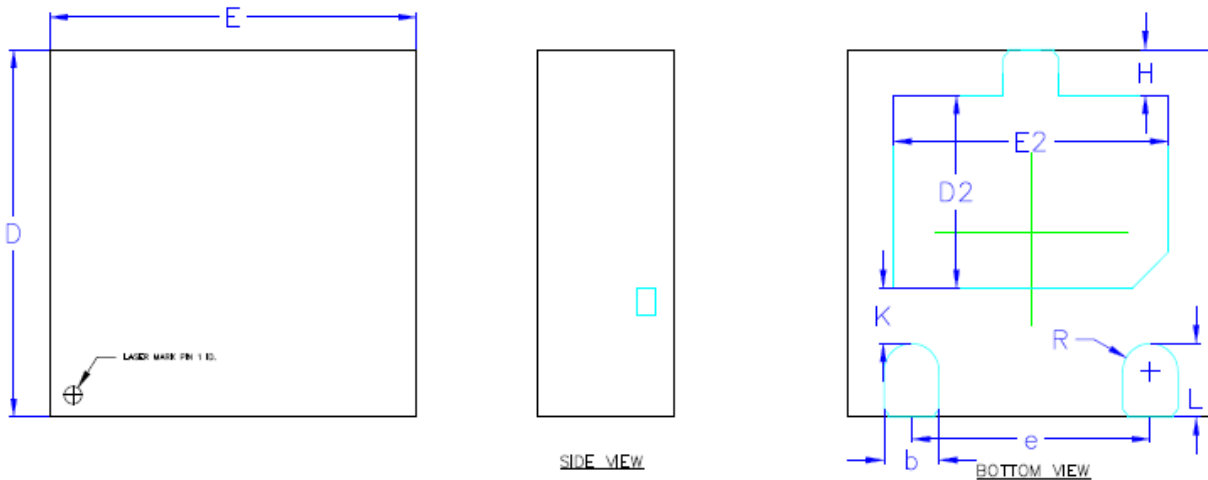
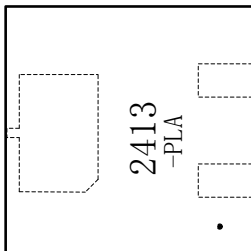


Figure 4: Clamping Voltage vs.Ipp



Outline Drawing – DFN2×2-3L


COMMON DIMENSION (MM)			
PKG	DFN2020		
REF	MIN.	NOM.	MAX
A	0.527	0.552	0.577
A3	0.127 REF		
b	0.25	0.30	0.35
D	1.90	2.00	2.10
E	1.90	2.00	2.10
D2	0.95	1.05	1.15
E2	1.40	1.50	1.60
e	1.20	1.30	1.40
H	0.20	0.25	0.30
K	0.20	0.30	0.40
L	0.35	0.40	0.45
R1	0.13	—	—

Marking

Ordering information

Order code	Package	Base qty	Delivery mode
RL20203Q2401VR	DFN2×2-3L	3000	Tape and reel

