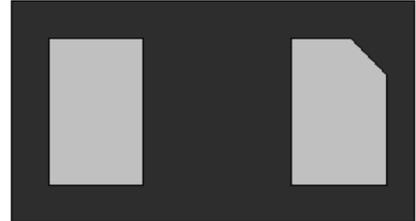


Key Features

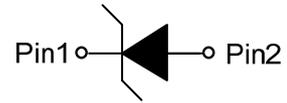
- Ultra small package
- Stand-off voltage: 15V Max
- Ultra-low capacitance: $C_J = 50\text{pF typ}$
- Low leakage current
- Low clamping voltage
- Compliant to Halogen-free
- Suffix “-Q1” for AEC-Q101

Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players



0402(DFN-2L)



PIN Configuration

Protection Solution to Meet

- IEC 61000-4-2 (ESD Air): +30KV
- IEC 61000-4-2 (ESD Contact): +30KV
- IEC 61000-4-5 (Surge): 9A(8/20 μ s)

Package Information

- DFN-2L package
- Marking code : 15

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

Symbol	Parameter	Conditions	Rating	Unit
V _{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	±30	kV
		IEC 61000-4-2; Air Discharge	±30	kV
P _{PP}	Peak Pulse Power	t _p = 8/20 μ s	270	W
I _{PP}	Peak Pulse Current	t _p = 8/20 μ s	9	A
T _J	Junction Temperature Range		-55~125	°C
T _{STG}	Storage Temperature Range		-55~150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V _{RWM}	Reverse Working Voltage				15	V
V _{BR}	Breakdown Voltage	I _{BR} = 1mA	15.5			V
V _F	Forward Voltage	I _F = 10mA			1.2	V
I _R	Reverse Leakage Current	V _{RWM} = 15V			0.5	μA
V _C	Clamping Voltage ³⁾	I _{PP} =9A, t _p =8/20μs		25.6	30	V
C _J	Junction Capacitance	V _R = 0V, f = 1 MHz		50		pF

- 1) TLP parameter: Z₀ = 50Ω, T_F = 100ns, T_R = 2ns, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.
- 2) Contact discharge mode, according to IEC61000-4-2.
- 3) Non-repetitive current pulse, according to IEC61000-4-5.

Typical Characteristics (T_A=25°C unless otherwise noted)

Fig1. 8/20μs waveform per IEC61000-4-5

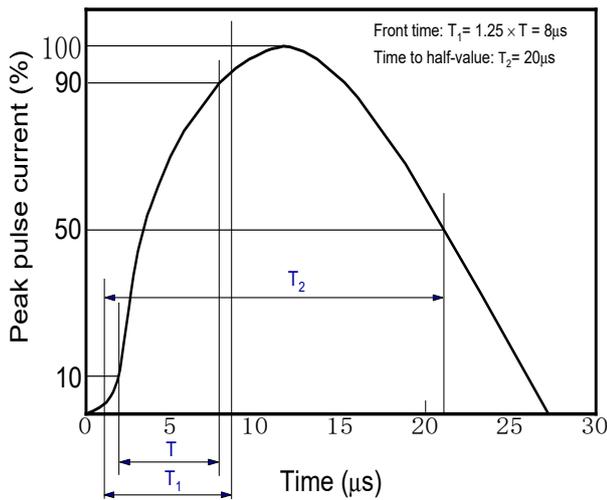


Fig2. Contact discharge current waveform per IEC61000-4-2

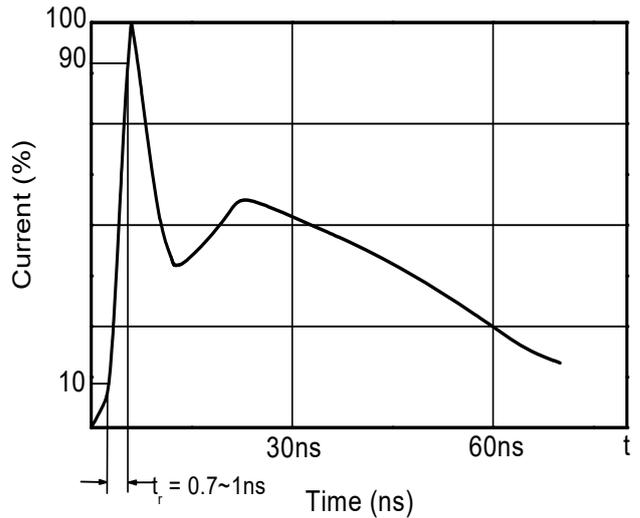


Fig3. Clamping voltage vs. Peak pulse current

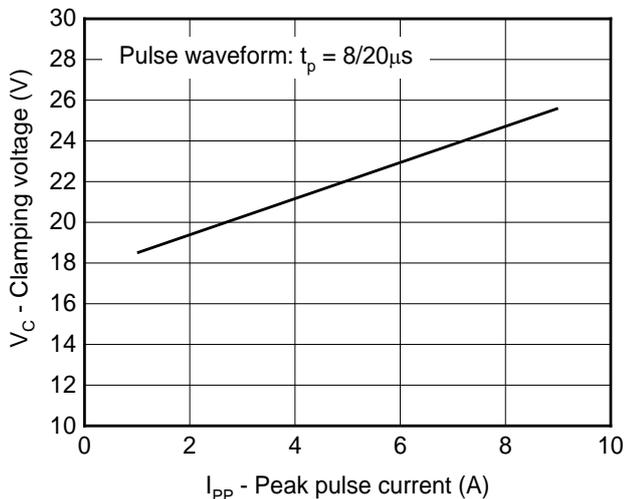
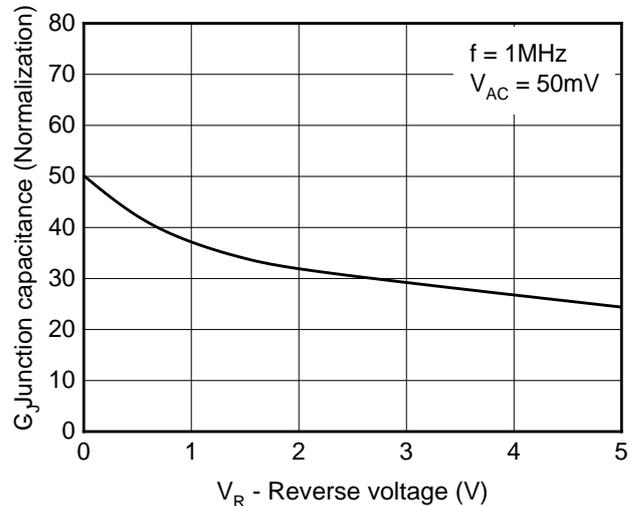


Fig4. Capacitance vs. Reverse voltage



Typical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig5. Non-repetitive peak pulse power vs. Pulse time

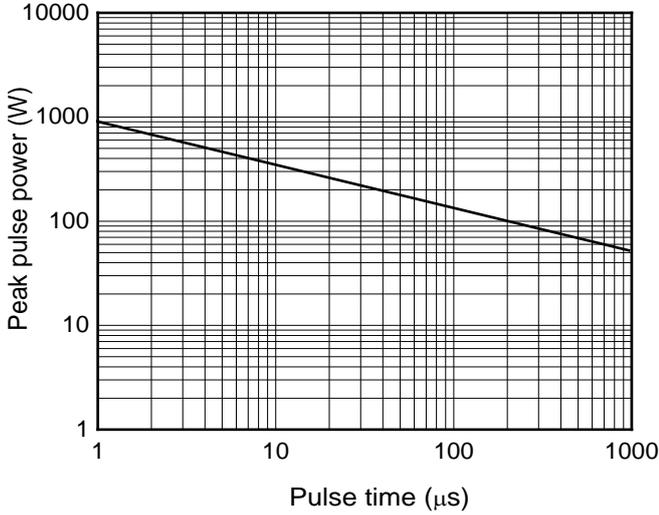


Fig6. Power derating vs. Ambient temperature

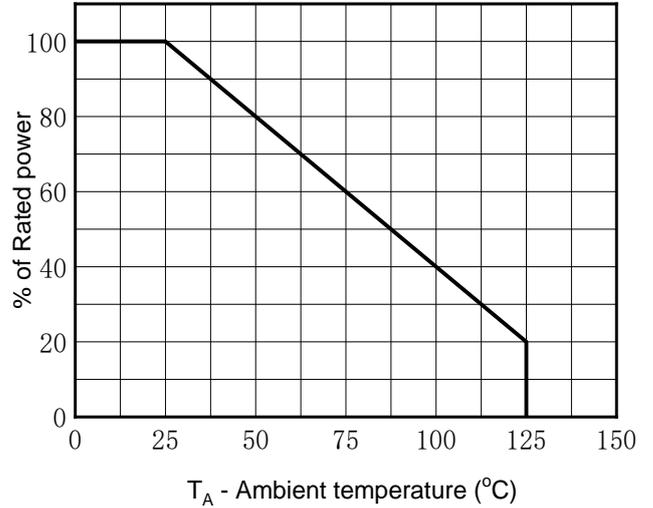
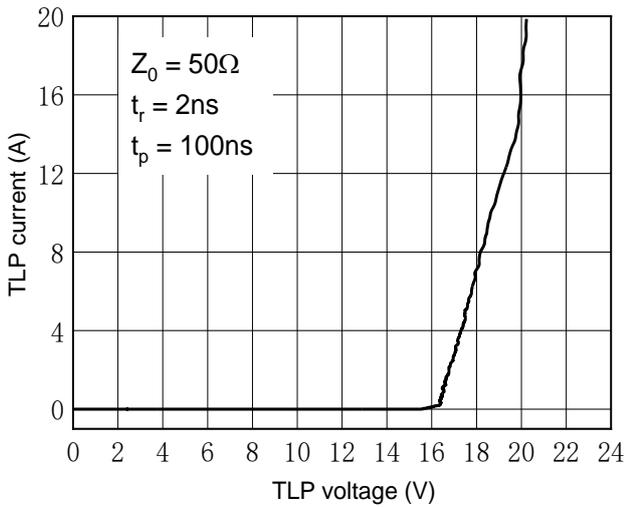
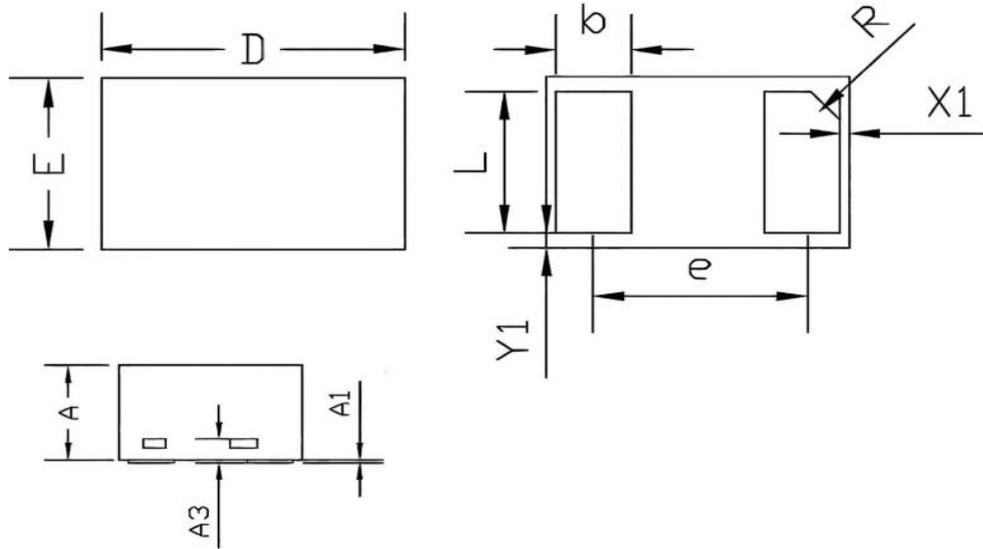


Fig7.TLP Measurement

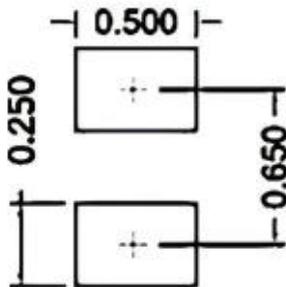


DFN-2L Outline Dimensions



COMMON DIMENSION (MM)			
REF.	MIN.	NOM.	MAX
A	0.45	0.50	0.55
D	0.95	1.00	1.05
E	0.55	0.60	0.65
b	0.20	0.25	0.30
L	0.45	0.50	0.55
e	0.650		
R	0.07	0.10	0.13
X1	0.025	---	0.065
Y1	0.025	---	0.065
A1	0	---	0.015
A3	0.119	---	0.15

Recommended PCB Layout



Unit:mm

Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met