

Key Features

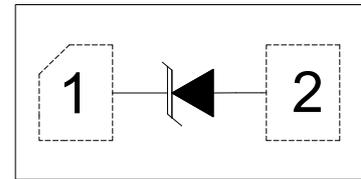
- Protects one line I/O or power line
- Low clamping voltage
- Low leakage current
- Ultra low capacitance: 150pF(typ)
- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC61000-4-5 (Lightning) 28A(8/20us)
- RoHS compliant
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101



DFN-2L(Bottom view)

Applications

- Cellular handsets
- Portable electronics
- Computers and peripheral



Pin Configuration(Top view)

Package Information

- DFN-2L package
- Molding compound flammability rating : UL 94V-0
- Lead finish : lead free
- Marking code : 15S

Electrical Characteristics ($T_A=25^\circ\text{C}$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20 μs waveform	P_{PP}	900	W
ESD per IEC 61000-4-2 (Air)	V_{ESD}	+/- 30	kV
ESD per IEC 61000-4-2 (Contact)		+/- 30	
Lead soldering temperature	T_L	260 (10 sec.)	$^\circ\text{C}$
Operating junction temperature range	T_J	-55 to +125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				15	V
Reverse breakdown voltage	V_{BR}	$I_T=1\text{mA}$	16	18	20	V
Reverse leakage current	I_R	$V_{RWM}=15\text{V}$			1	μA
Peak pulse current	I_{PP}	$t_P=8/20\mu\text{s}$			28	A
Clamping voltage	V_C	$I_{PP}=10\text{A}$, $t_P=8/20\mu\text{s}$		23	25	V
		$I_{PP}=28\text{A}$, $t_P=8/20\mu\text{s}$		29	32	
Junction capacitance	C_J	$V_{RWM}=0\text{V}$, $f=1\text{MHz}$		150	200	pF

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

FIG.1: V- I curve characteristics (Uni-directional)

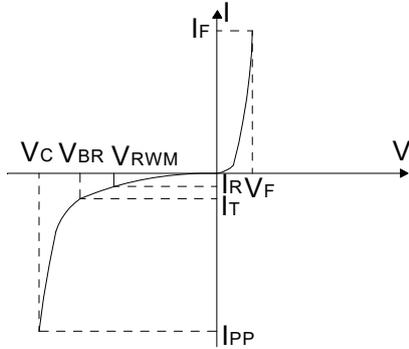


FIG.2: Pulse waveform (8/20 μs)

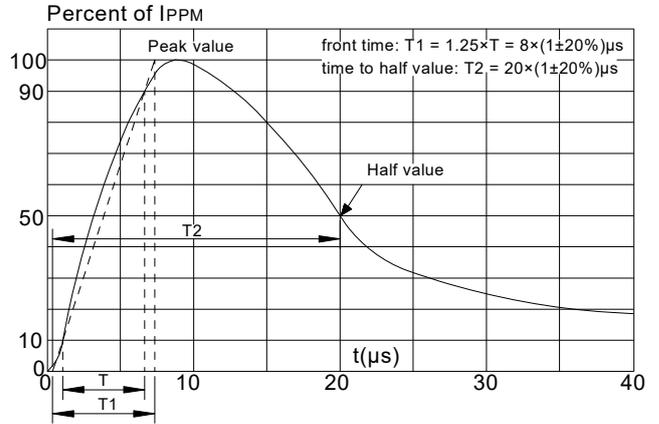


FIG.3: Pulse derating curve

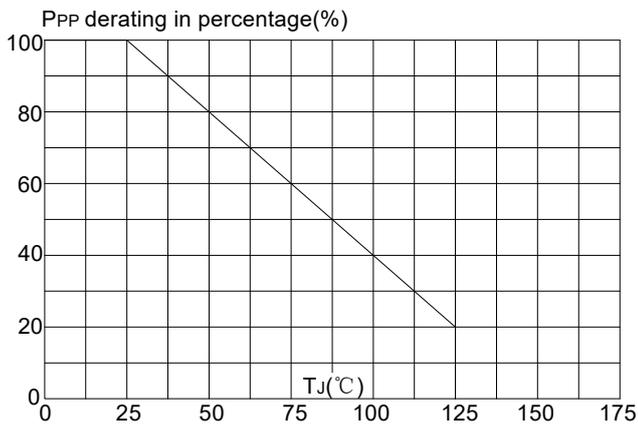
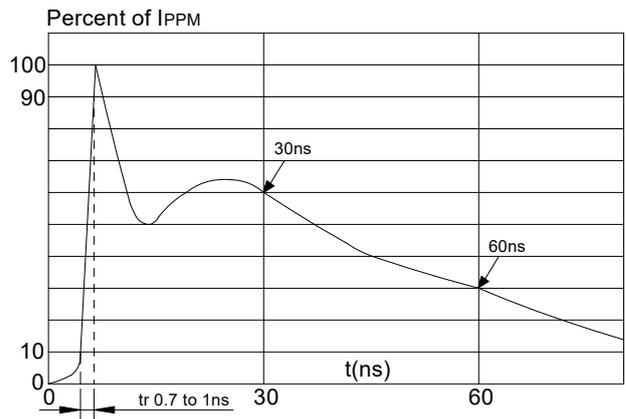
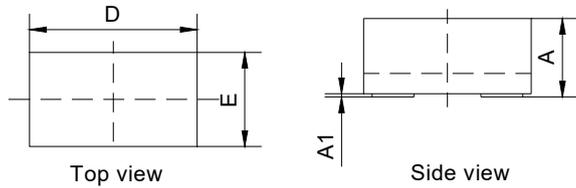


FIG.4: ESD clamping (30kV contact)



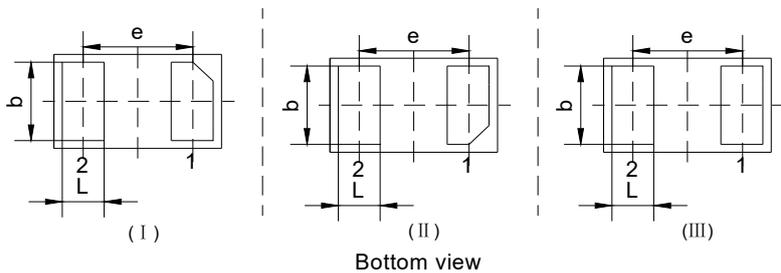
Package Dimensions

DFN-2L



Top view

Side view



(I)

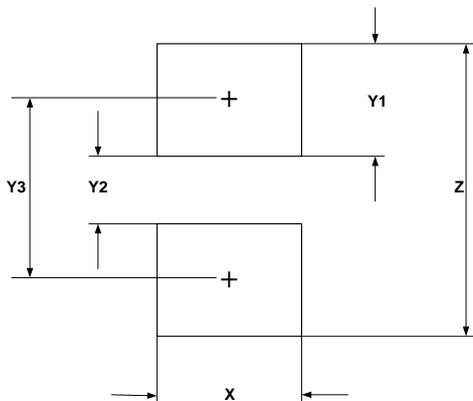
(II)

(III)

Bottom view

SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.40	0.50	0.55	0.016	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012

Pad Dimensions



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.60	0.024
Y1	0.50	0.020
Y2	0.30	0.012
Y3	0.80	0.032
Z	1.30	0.052