

Features

- Small Surface Mounting Type
- Ideal for Automated Placement
- Low current leakage
- Low Power Losses, High Efficiency
- Low Forward Voltage Drop
- High Surge Capability
- Compliant to Halogen-free



DFN-2L(0402)

Mechanical Characteristics

- Package: DFN-2L
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Marking Code: 40 or 4A



Pin Configuration(Top view)

Applications

- Low Voltage
- High-Frequency Inverters
- Free Wheeling
- Polarity Protection

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Parameters	Symbol	Limit	Unit
Reverse Voltage (Repetitive Peak)	V_{RRM}	40	V
Average Rectified Output Current	I_o	1	A
Non-repetitive Peak Forward Surge Current@ $t=8.3\text{ms}$	I_{FSM}	7	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	400	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +125	$^{\circ}\text{C}$

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

Parameters	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Breakdown Voltage	V _{BR}	I _R =1mA	40			V
Reverse Current	I _R	V _R =40V		10	40	uA
Forward Voltage	V _F	I _F =100mA			0.38	V
		I _F =200mA			0.42	
		I _F =500mA			0.49	
		I _F =700mA			0.55	
		I _F =1A			0.61	

Typical Characteristics

FIG.1: Typical forward characteristics

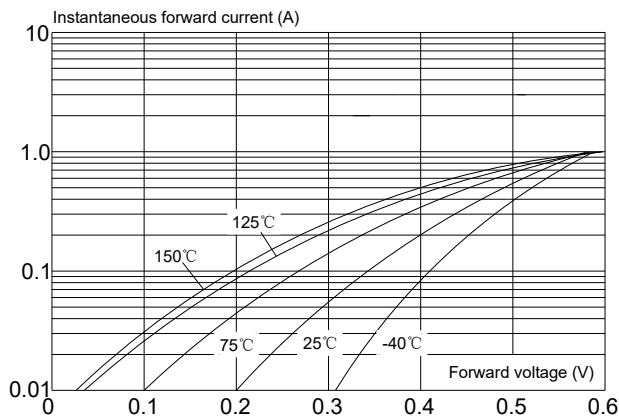


FIG.2: Typical reverse characteristics

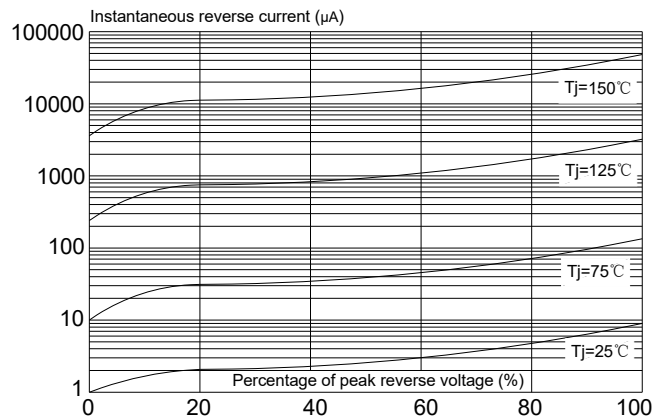


FIG.3: Maximum non-repetitive peak forward surge current

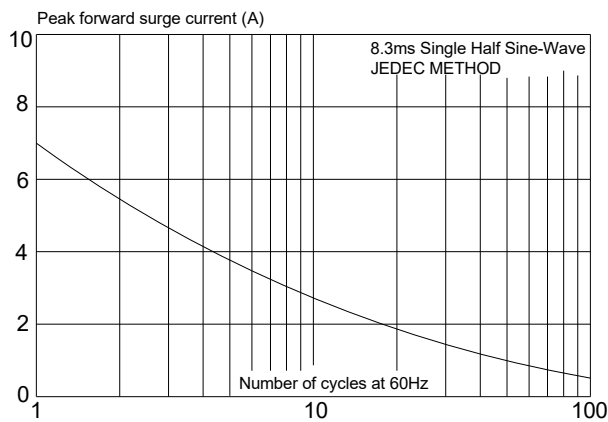
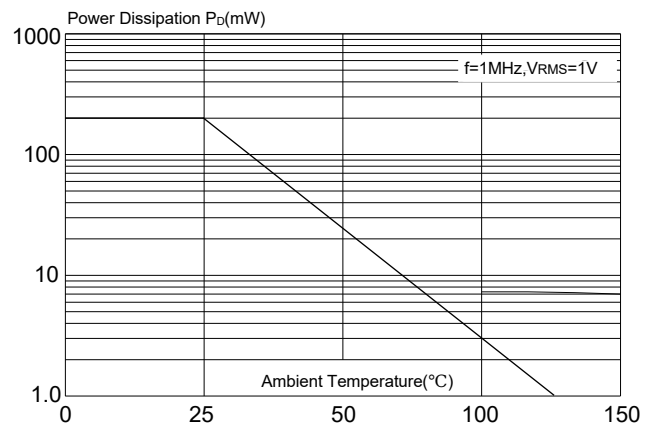
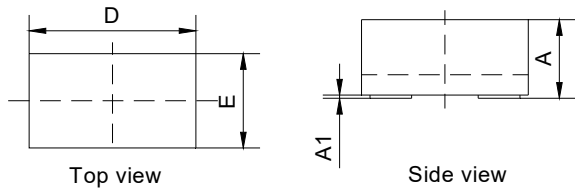


FIG.4: Power Derating Curve



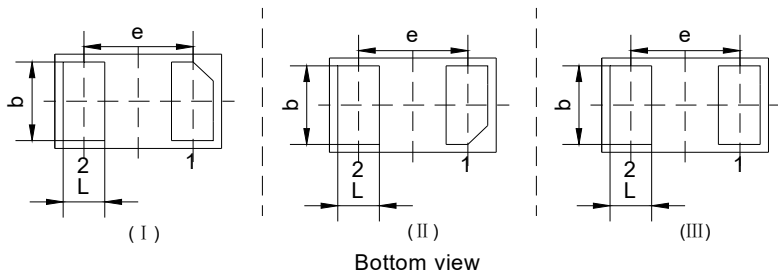
Package Outline Dimensions

DFN-2L



Top view

Side view



(I)

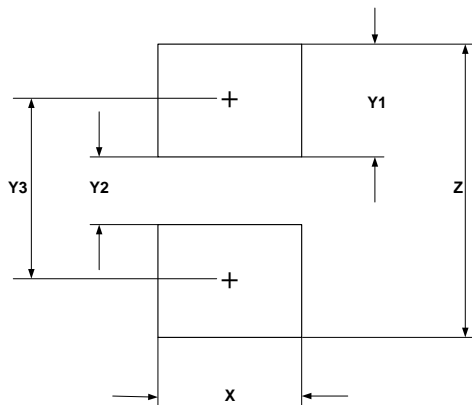
(II)

(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

Suggested Solder Pad Layout



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