

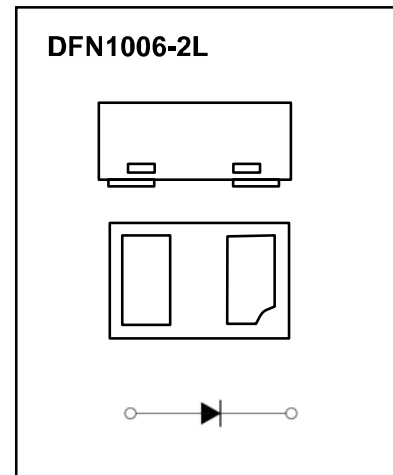
## Schottky Barrier Diode

### Features

- Low Forward Voltage Drop
- Very Small SMD Package

### Applications

- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications



### Marking: 4A



Front Side

### Maximum Ratings ( $T_a=25^\circ\text{C}$ unless otherwise noted )

Symbol	Parameter	Value	Unit
$V_{RRM}$	Peak Repetitive Reverse Voltage	40	V
$V_{RWM}$	Working Peak Reverse Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	28	V
$I_o$	Average Rectified Output Current	1	A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	7	A
$P_D$	Power Dissipation (Note 1)	500	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	$^\circ\text{C}/\text{W}$
$T_j$	<b>Operating Junction Temperature Range</b>	-40~+125	$^\circ\text{C}$
$T_{stg}$	<b>Storage Temperature Range</b>	-55~+150	$^\circ\text{C}$

Note: 1. Device mounted on a 1 in.<sup>2</sup> ceramic PCB which spread 2 ounces of copper.

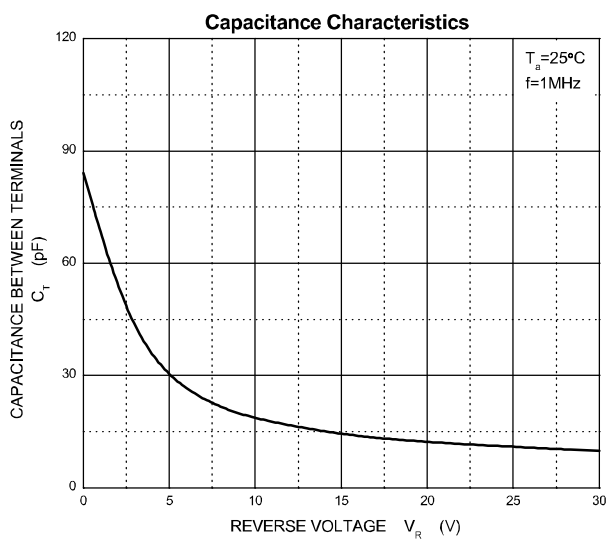
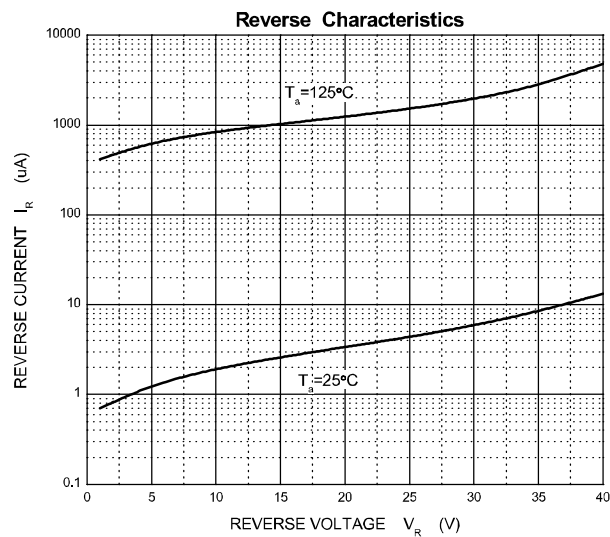
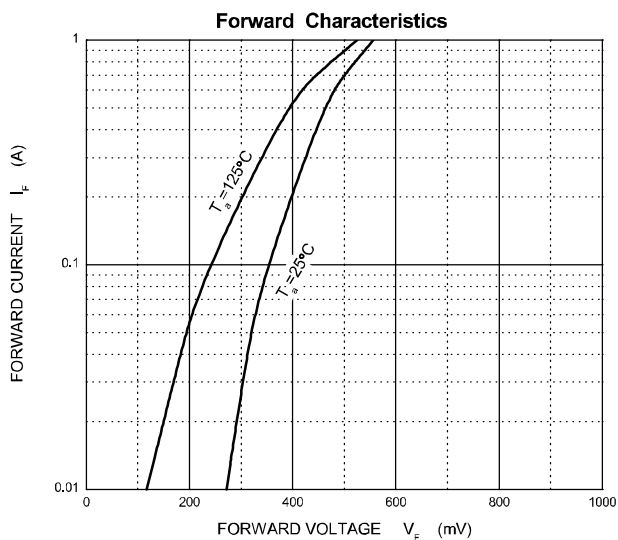
### Electrical Characteristics ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$	40			V
Reverse current	$I_R$	$V_R=40\text{V}$		10	40	$\mu\text{A}$
Forward voltage	$V_F$	$I_F=0.1\text{A}$		0.35	0.38	V
		$I_F=0.2\text{A}$		0.37	0.40	
		$I_F=0.5\text{A}$		0.42	0.49	
		$I_F=0.7\text{A}$		0.47	0.55	
		$I_F=1\text{A}$		0.51	0.61	
Total capacitance	$C_{tot}$	$V_R=10\text{V}, f=1\text{MHz}$		19		pF



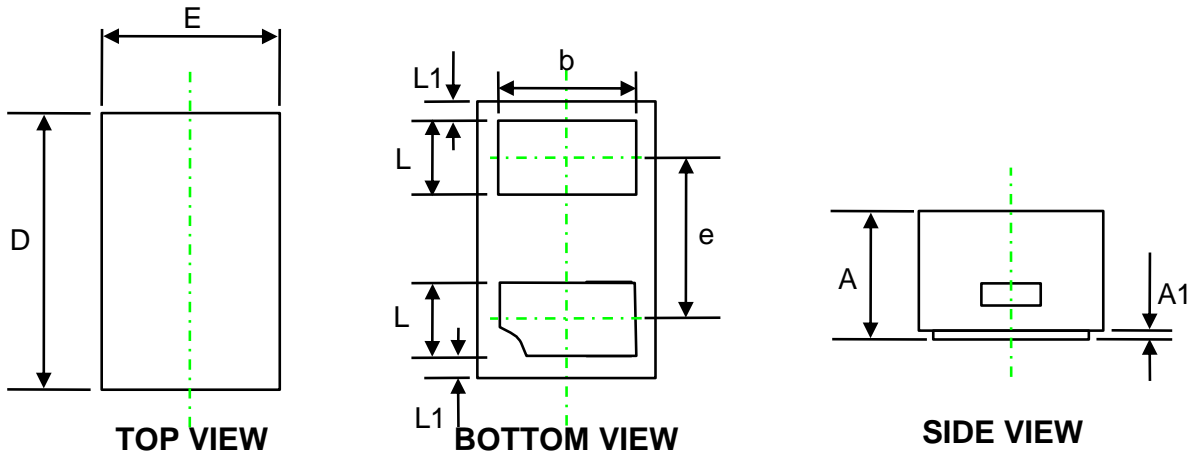
# FDR1040DFN1006

## Typical Characteristics



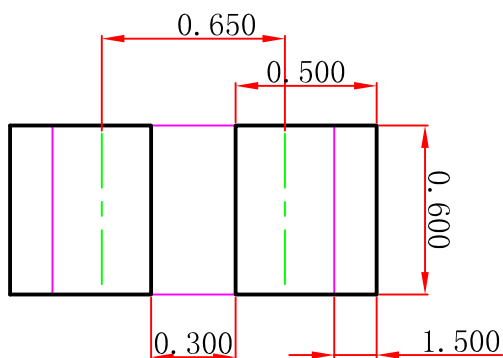
## Outline Dimensions and Pad Layout Information

### DFN1006-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters (mm)		
	Min.	Typ.	Max.
A	0.44	0.47	0.50
A1	0.00	0.03	0.05
D	0.95	1.00	1.08
E	0.55	0.60	0.68
b	0.40	0.50	0.60
e	-	0.65	-
L	0.20	0.25	0.30
L1	0.05 REF.		

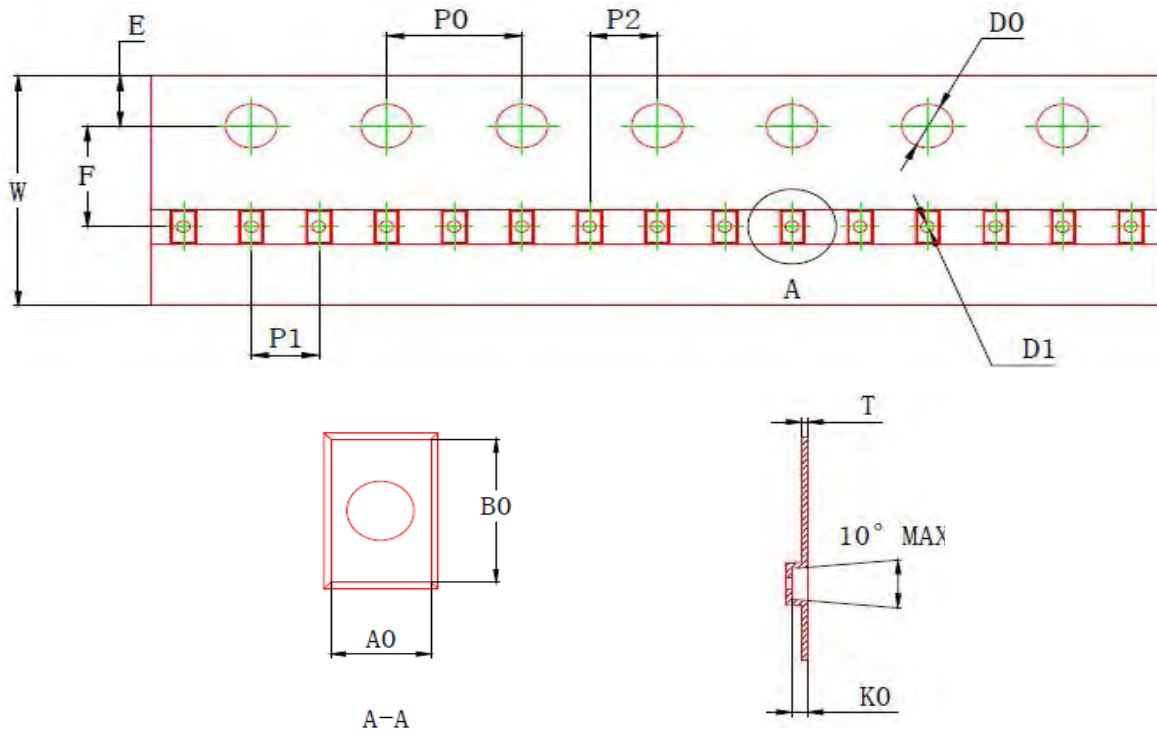
### DFN1006-2L Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.050$ mm.
  3. The pad layout is for reference purposes only.

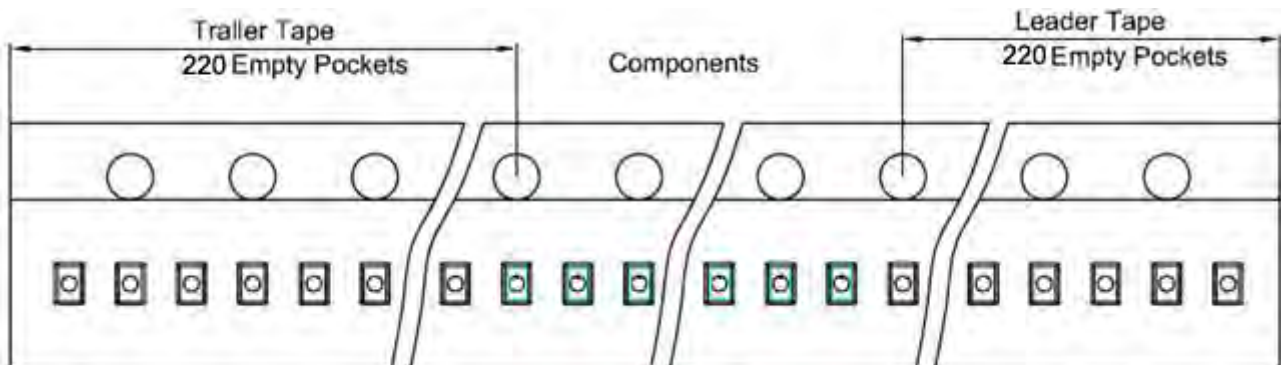
## DFN1006-2L/3L Tape and Reel

### 1. DFN1006 Embossed Carrier Tape



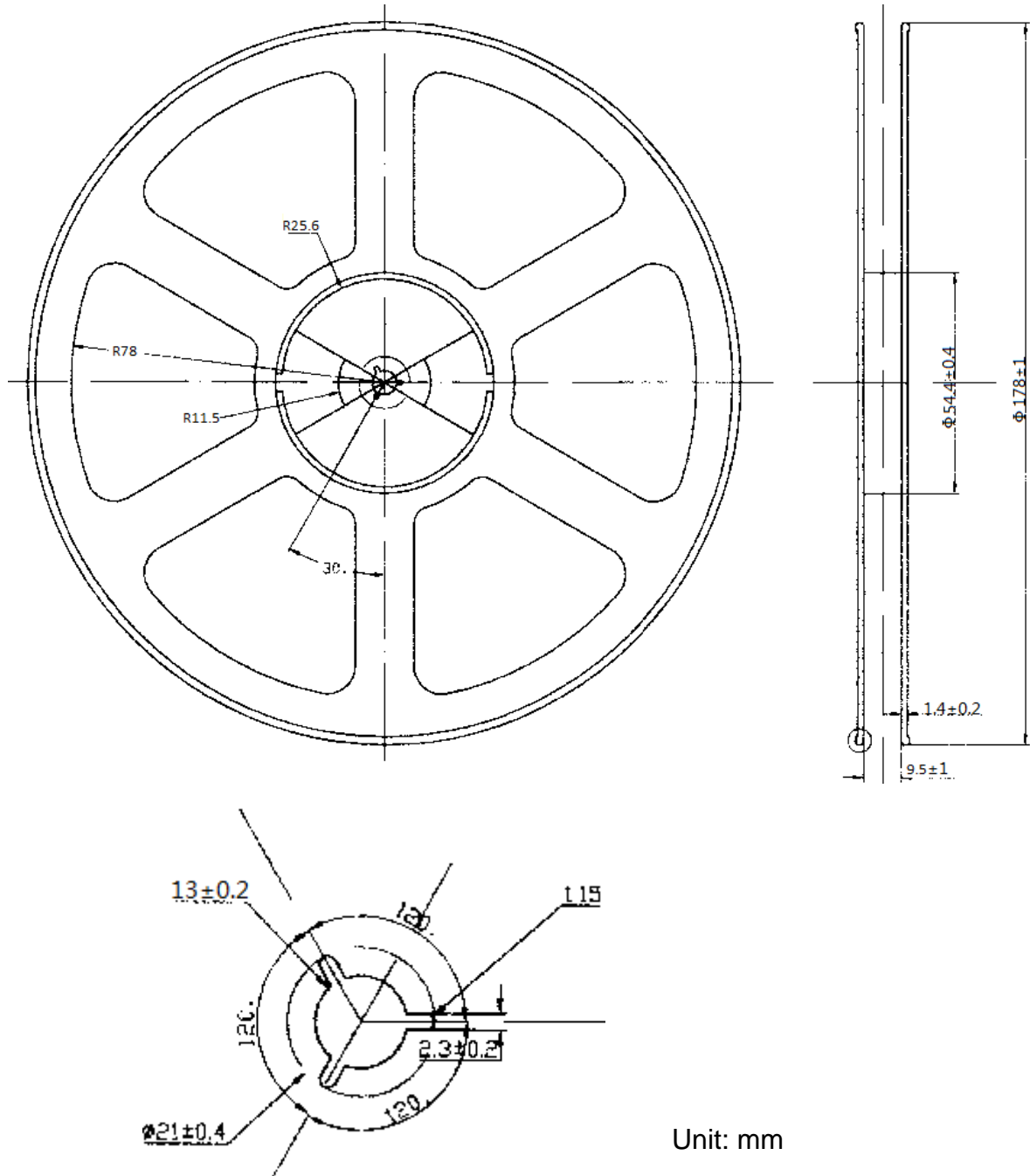
Dimensions are in millimeter												
Pkg type	W	P0	P1	P2	A0	B0	K0	D0	D1	F	E	T
DFN1006	8.0	4.0	2.0	2.0	0.71	1.11	0.48	1.55	0.5	3.5	1.75	0.23
Tolerance	+0.3/-0.1	+/-0.1	+/-0.05	+/-0.05	+/-0.05	+/-0.05	+/-0.05	+/-0.05	+/-0.05	+/-0.05	+/-0.1	+/-0.02

### 2. DFN1006 Tape Leader and Trailer



## DFN1006-2L/3L Tape and Reel

### 3. DFN1006 Reel Size



Reel Size	Devices Per Reel	Box Size(mm)	Devices Per Box	Carton Size (mm)	Devices Per Carton
7 inch	10,000 pcs	18×18×6.5	50,000	40×20×28	400,000