

1N4148W4

Fast Switching Diode

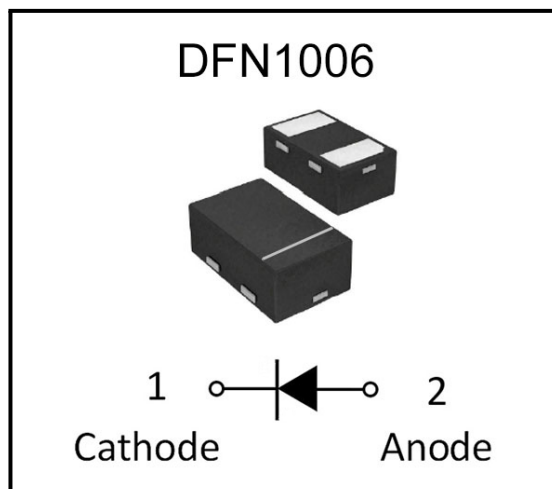
Features

- Fast Switching Device($T_{RR}<4.0$ nS)
- Power Dissipation of 150mW
- High Stability and High Reliability
- Low reverse leakage

General Description

- DFN1006 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Package



Marking

W4

Ordering information

Order code	Package	Package	Baseqty	Delivery mode
1N4148W4	DFN1006	W4	10K	Tape and reel

Maximum Ratings@ $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Limit	Unit
V_R	Maximum Recurrent Peak Reverse Voltage	75	V
V_{RM}	Maximum RMS Voltage	100	V
P_d	Power Dissipation	150	mW
I_O	Average Rectified Current	0.15	A
I_{FM}	Non-repetitive Peak Forward Current	0.3	A
I_{FSM}	Peak Forward Surge Current @ $t_p=1\mu\text{S}; T_A=25^{\circ}\text{C}$	2.0	A
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	833	$^{\circ}\text{C/W}$
T_J	Operation Junction Temperature	150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$



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Electrical Characteristics@ $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V_B	Breakdown Voltage	$I_R=100\mu\text{A}$	100	—	—	V
		$I_R=5\mu\text{A}$	75	—	—	V
I_R	Reverse Leakage Current	$V_R=20\text{V}$	—	—	25	nA
		$V_R=75\text{V}$	—	—	5	μA
V_F	Forward Voltage	$I_F=1\text{mA}$	—	—	0.72	V
		$I_F=10\text{mA}$	—	—	0.95	
		$I_F=150\text{mA}$	—	—	1.25	
T_{rr}	Reverse Recovery Time	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1\times I_R$, $R_L=100\Omega$	—	—	4	nS
C_D	Diode Capacitance	$V_R=0\text{V}$, $f=1\text{MHZ}$	—	—	4	pF



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

Figure 1: Typical Forward Characteristics

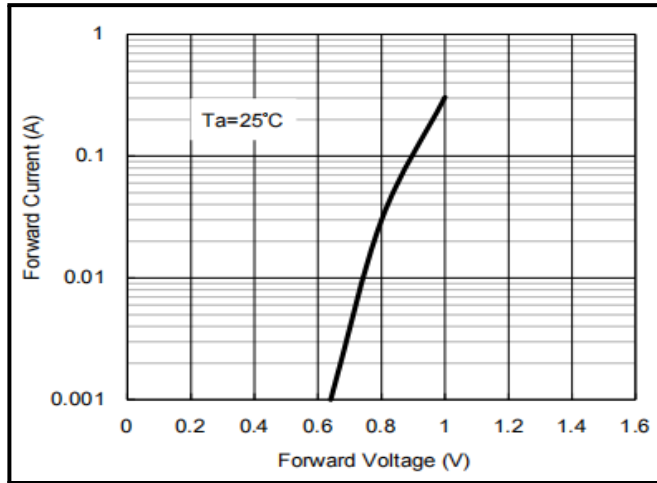


Figure 2: Reverse Current VS. Reverse Voltage

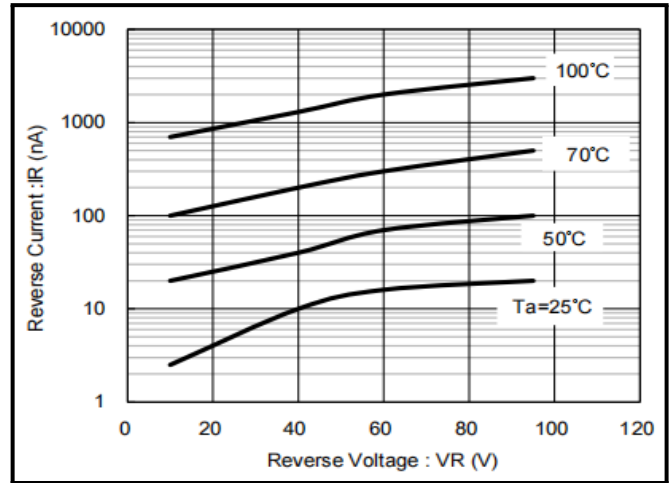


Figure 3: Admissible Power Dissipation Curve

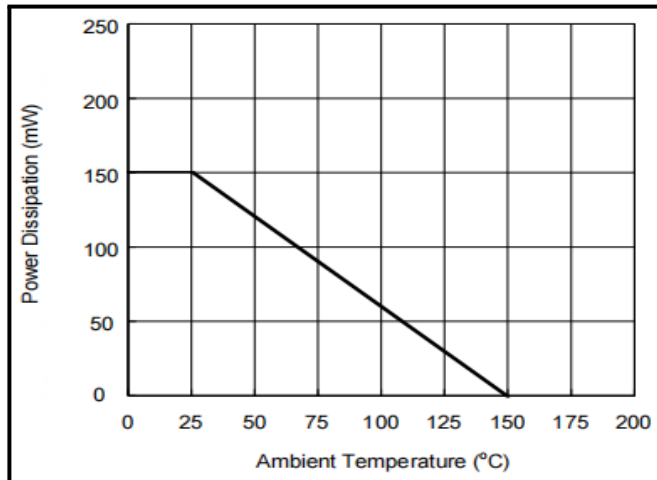
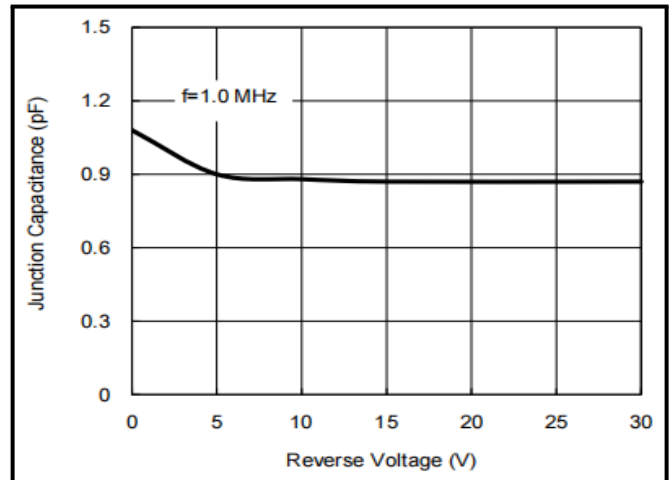


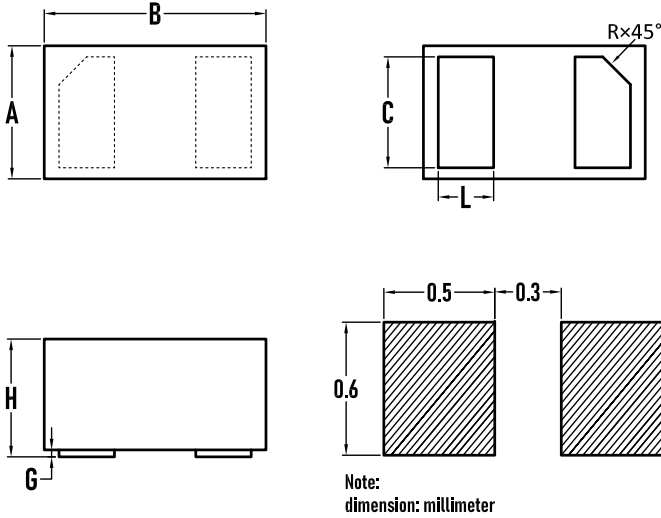
Figure 4: Typical Junction Capacitance



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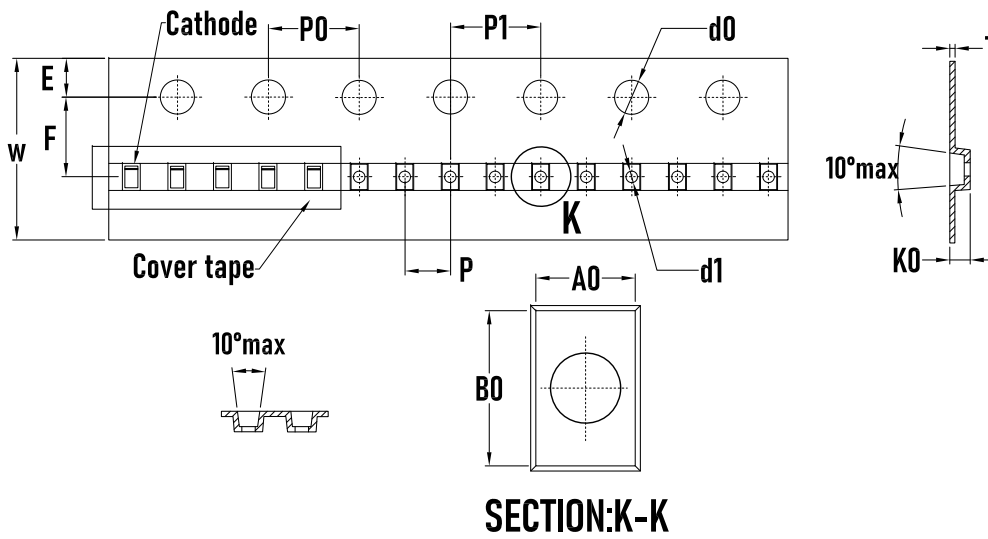
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Outline Drawing - DFN1006



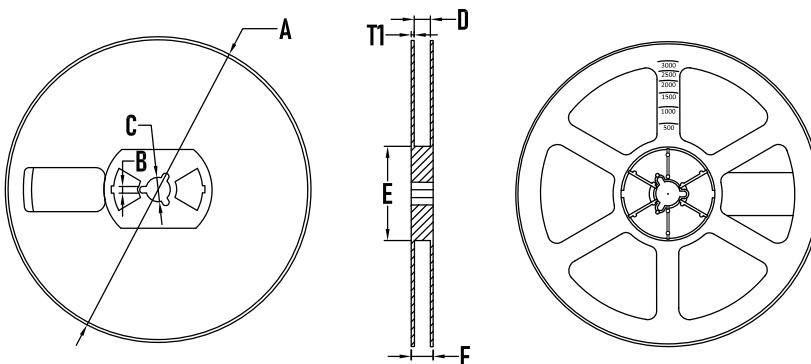
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.55	0.60	0.65
B	0.95	1.00	1.05
C	0.45	0.50	0.55
L	0.20	0.25	0.30
F	0.05REF		
G	0.00	0.02	0.05
H	0.45	0.50	0.55
R	0.07	0.12	0.17

Packaging Tape - DFN1006



SYMBOL	MILLIMETER
A0	0.71±0.05
B0	1.11±0.05
d0	1.5 ^{+0.1} ₋₀
d1	0.50±0.05
E	1.75±0.10
F	3.50±0.05
K0	0.56±0.05
P	2.00±0.05
P0	4.00±0.10
P1	2.00±0.05
W	8.00 ^{+0.03} _{-0.01}
T	0.2±0.015

Packaging Reel



SYMBOL	MILLIMETER
A	178±1
B	3.5±0.2
C	14.3±0.2
D	9.8 ⁺² ₋₁
E	54.5±0.5
F	12.4±0.2
T1	1.0±0.2
Quantity	10000PCS

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Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

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