

150mW DFN1006-2 Fast Switching Diode

Features

- Fast Switching Device ($T_{rr} < 4.0 \text{ nS}$)
- Power Dissipation of 150mW
- High Stability and High Reliability
- Low reverse leakage
- AEC-Q 101 qualified (Automotive grade with suffix " Q ")
- Expsemi electronics

DFN1006-2

Top View



Bottom View

Mechanical Data

- DFN1006-2 Small Outline Plastic Package
- Color band denotes cathode end
- Mounting Position: Any

MARKING: T4

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

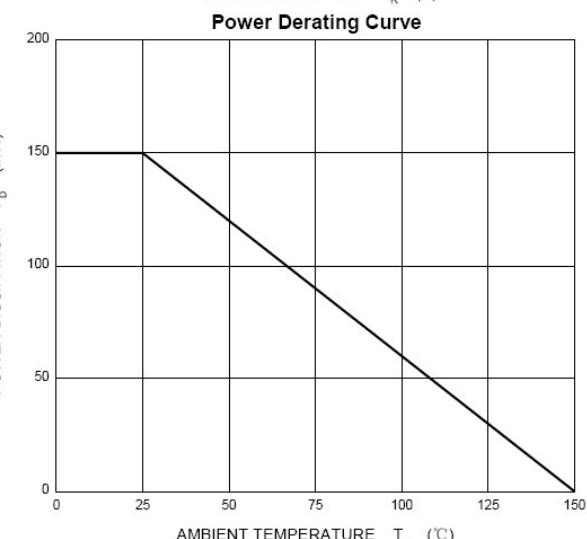
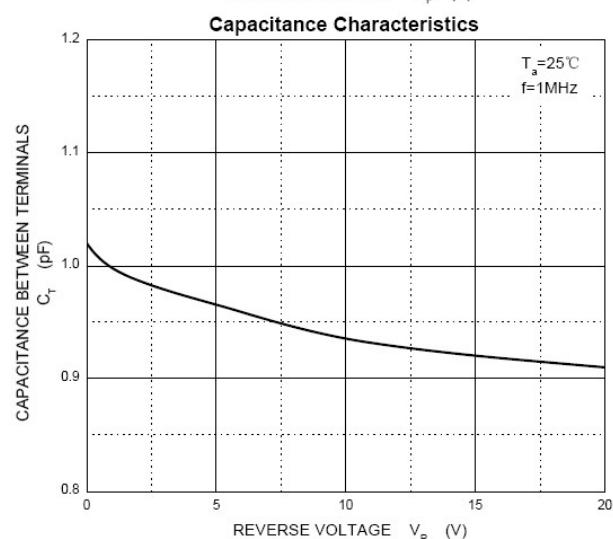
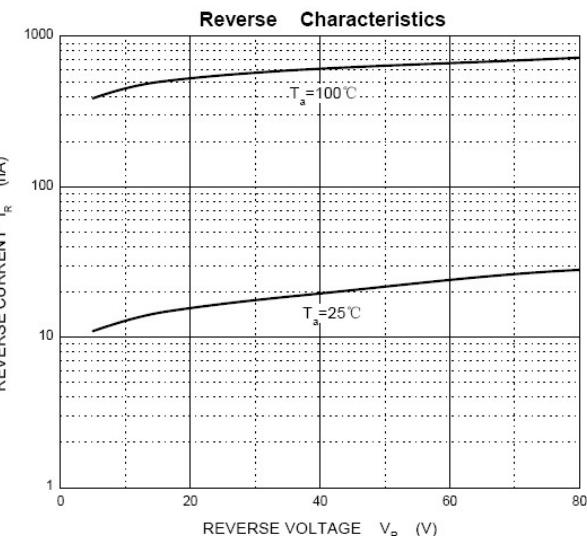
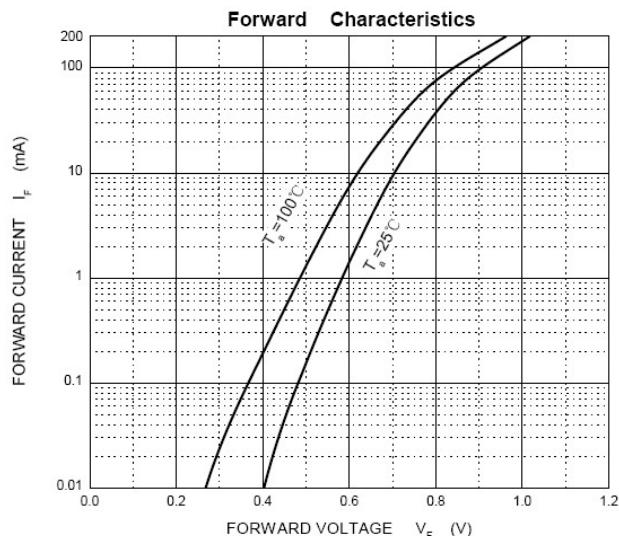
Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Power Dissipation	P_d	150	mW
Operating junction temperature	T_j	150	°C
Storage temperature range	T_s	-55-+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	°C/W
Average Rectified Current	I_o	150	mA
Non-repetitive Peak Forward Current	I_{FM}	300	mA
Peak Forward Surge Current @tp=1us; TA=25°C	I_{FSM}	2.0	A

Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

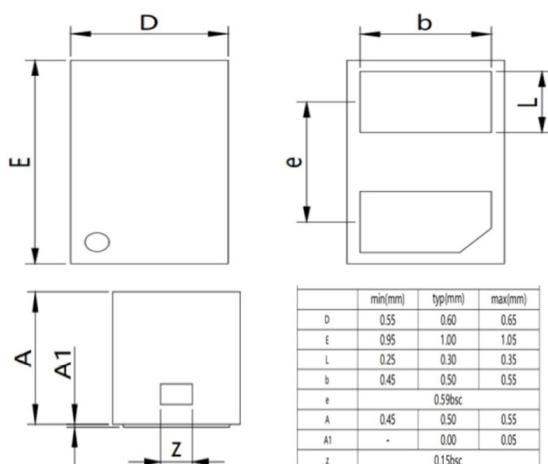
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_v	Breakdown Voltage	$IR=100\mu\text{A}$	100		V
		$IR=5\mu\text{A}$	75		
I_R	Reverse Leakage Current	$VR=20\text{V}$	---	25	nA
		$VR=75$	---	1	uA
V_F	Forward Voltage	$IF=1.0\text{mA}$	---	0.715	V
		$IF=10\text{mA}$	---	0.855	
		$IF=50\text{mA}$	---	1.00	
		$IF=150\text{mA}$	---	1.25	
T_{RR}	Reverse Recovery Time	$IF= IR=10\text{mA}$			nS
		$RL=100\Omega$	---	4	
		$IRR=0.1 \times IR$			
C_T	Capacitance	$VR=0\text{V}, f=1\text{MHZ}$	---	2	pF

Typical Characteristics



DFN1006-2 PACKAGE OUTLINE

Plastic surface mounted package



Ordering information

Device	Package	Reel	Marking	Shipping
1N4148DB	DFN1006-2L(Pb-free)	7"	T4	10000/Tape & Reel