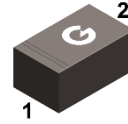


Features

- Fast switching speed
- High conductance
- RoHS compliant with Halogen-free

HF

Cathode 1 —> Anode 2



DFN1006-2

Mechanical Data

- Case: DFN1006-2
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
1N4448L	DFN1006-2	10000 pcs / Tape & Reel	T5

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V _{RRM}	80	V
Working Peak Reverse Voltage	V _{RWM}	80	V
DC Blocking Voltage	V _R	80	V
RMS Reverse Voltage	V _{R(RMS)}	57	V
Average Rectified Output Current	I _O	150	mA
Forward Current	I _{FM}	250	mA
Peak Forward Surge Current, 1μs Single Half-sine-wave	I _{FSM}	2	A
Peak Forward Surge Current, 1s Single Half-sine-wave	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	162	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	85	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	160	°C/W
Operating Junction Temperature Range	T _J	-65 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C

Note 1: The data tested by surface mounted on a 18mm * 15mm * 1mm FR4-epoxy P.C.B

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	80	-	-	V
Forward Voltage	V_F	$I_F = 5\text{mA}$	-	-	0.720	V
		$I_F = 10\text{mA}$	-	-	0.855	V
		$I_F = 100\text{mA}$	-	-	1.000	V
		$I_F = 150\text{mA}$	-	-	1.250	V
Maximum Peak Reverse Current	I_R	$V_R = 20\text{V}$	-	-	25	nA
		$V_R = 80\text{V}$	-	-	100	nA
		$V_R = 25\text{V}, T_J = 125^\circ\text{C}$	-	-	30	μA
		$V_R = 75\text{V}, T_J = 150^\circ\text{C}$	-	-	50	μA
Total Capacitance	C_J	$V_R = 0.5\text{V}, f = 1.0\text{MHz}$	-	-	3	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	4	ns

Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

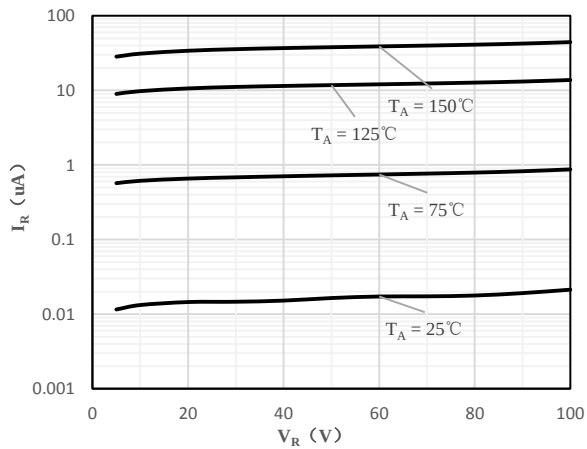


Fig 1 Typical Reverse Characteristic

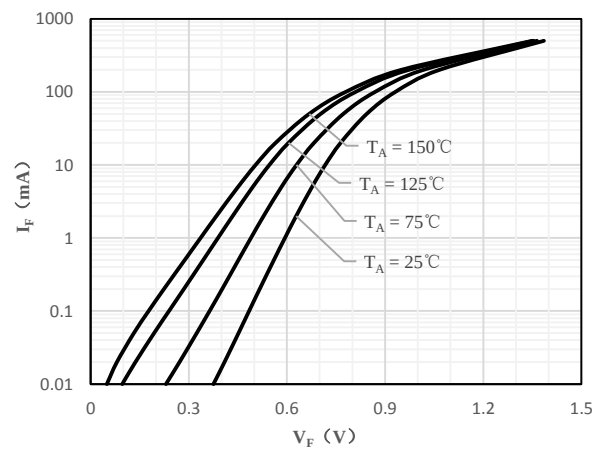


Fig 2 Typical Forward Characteristics

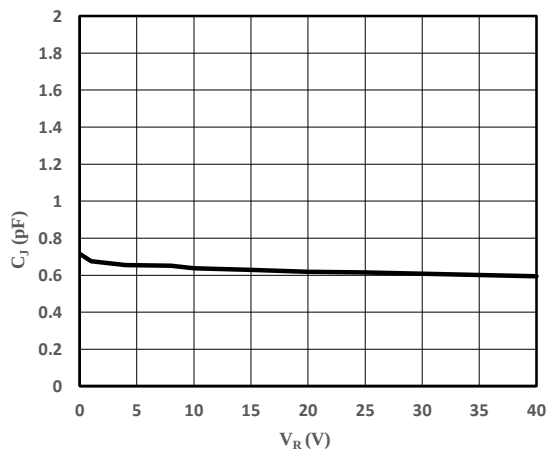


Fig 3 Capacitance vs. Reverse Voltage

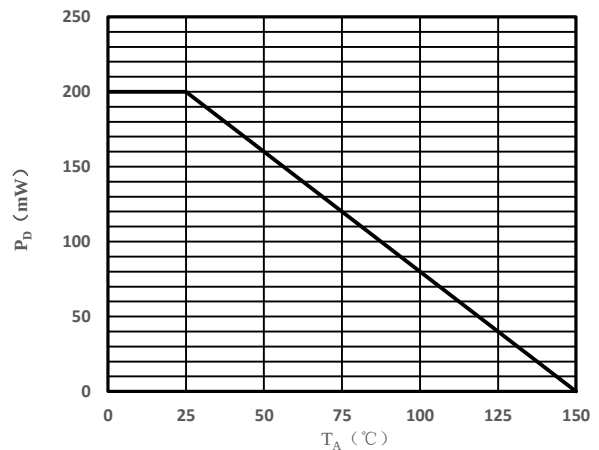
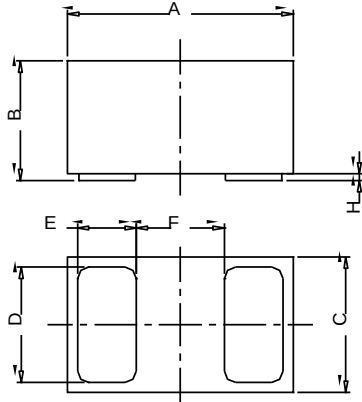


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



DFN1006-2			
Dimension	Min.	Typ.	Max.
A	0.95	1.00	1.075
B	0.45	0.50	0.55
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

Package Outline Dimensions (Unit: mm)

DFN1006-2

