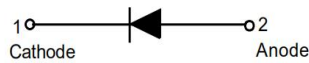


## Features and benefits

- Extremely small surface mounting type.
- High Speed.

## Application information

- High speed switching



DFN1006-2L

## Marking: T8

### Maximum Ratings (@ T<sub>A</sub> = 25°C unless otherwise specified)

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

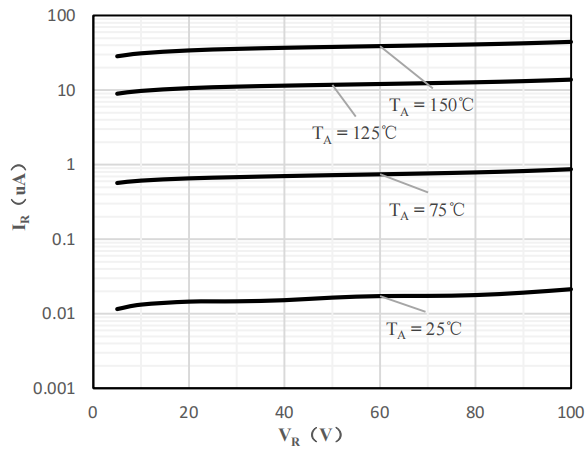
### Thermal Characteristics

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

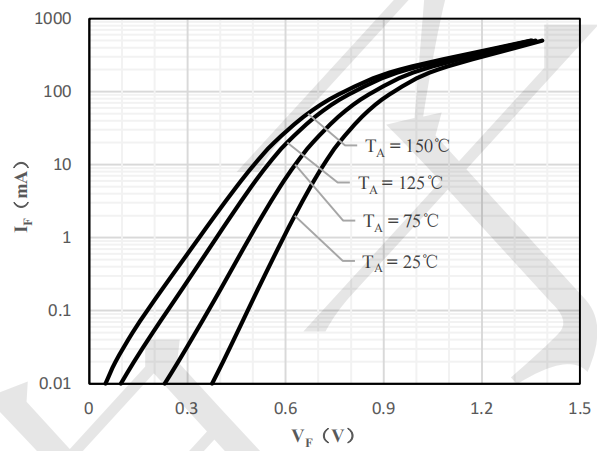
**Electrical Characteristics** (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)

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	$\mu\text{A}$
		$V_R = 75\text{V}, T_J = 150^\circ\text{C}$	-	-	50	$\mu\text{A}$
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

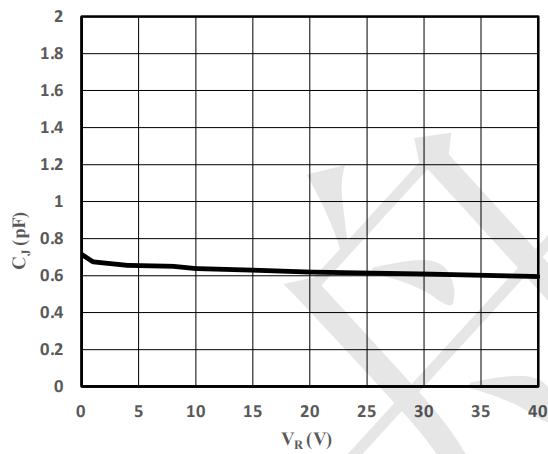
**Ratings and Characteristics Curves** (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)



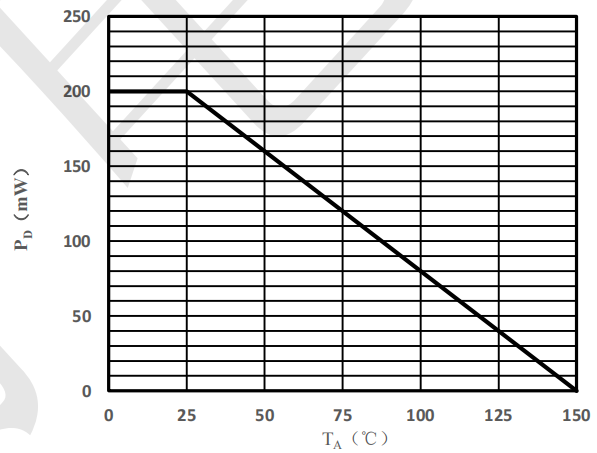
**Fig 1 Typical Reverse Characteristic**



**Fig 2 Typical Forward Characteristics**

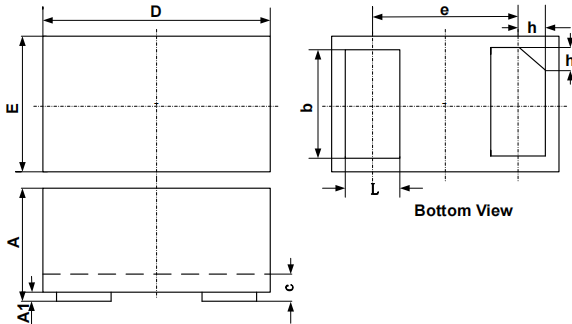


**Fig 3 Capacitance vs. Reverse Voltage**



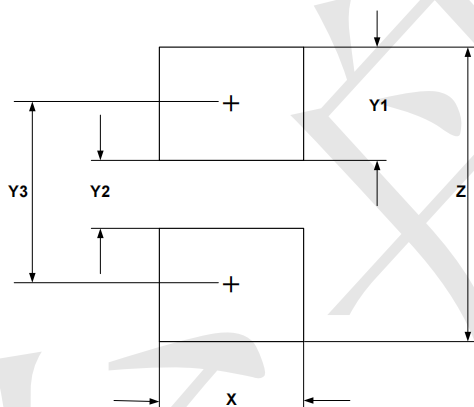
**Fig 4 Power Derating Curve**

### Outline Drawing - DFN1006-2



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	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
c	0.12	0.15	0.18	0.005	0.006	0.007
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
h	0.07	0.12	0.17	0.003	0.005	0.007

### Land Pattern - DFN1006-2



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

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