

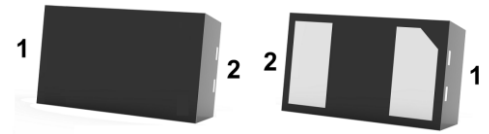


## Switching Diodes

DFN1006-2L

### FEATURES

- Silicon Diode in a DFN1006-2L Plastic Package.
- For General Purpose Switching Applications
- Small signal diode.



### Maximum Ratings @Ta=25°C

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	80	V
Peak Reverse Voltage	$V_{RM}$	100	V
Rectified Current (Average)	$I_o$	215	mA
Forward Continuous Current	$I_{FM}$	300	mA
repetitive peak forward current	$I_{FRM}$ ( $t_p \leq 0.5 \mu s; \delta \leq 0.25$ )	500	mA
Surge Forward Current	$I_{FSM}(t=1.0\mu s)$	4.0	A
	$I_{FSM}(t=1.0s)$	1.0	A
Power Dissipation	$P_{tot}$	250	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	°C/W



Electrical Characteristics @Ta=25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=1.0\text{mA}$			715	mV
		$I_F=10\text{mA}$			855	mV
		$I_F=50\text{mA}$			1	V
		$I_F=150\text{mA}$			1.25	V
Instantaneous Reverse Current	$I_R$	$V_R=20\text{V}$			25	nA
		$V_R=75\text{V}$			5	uA
		$V_R=20\text{V}$ $T_J=150^\circ\text{C}$			50	uA
Capacitance	$C_{tot}$	$V_F=V_R=0\text{V}$			4	pF
Reverse Recovery Time	$t_{rr}$	$I_F=10\text{mA}$ $V_R=6.0\text{V}$ $I_R=1\text{mA}$ $R_L=100\Omega$			4	nS
Voltage Rise when Switching On tested	$V_{fr}$	$t_p=0.1\mu\text{s}$ $f_p=5\text{to}100\text{KHz}$ Time<30nS			2.5	V
Total Capacitance	$C_T$	$V_R=0\text{V}$ $f=1.0\text{MHz}$			5.0	pF

Fig.1 Forward Characteristics

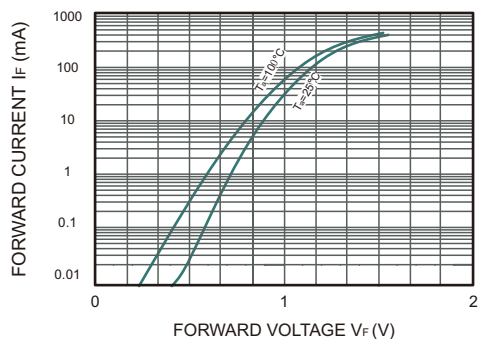


Fig.2 Semiconductor Intrinsic Property

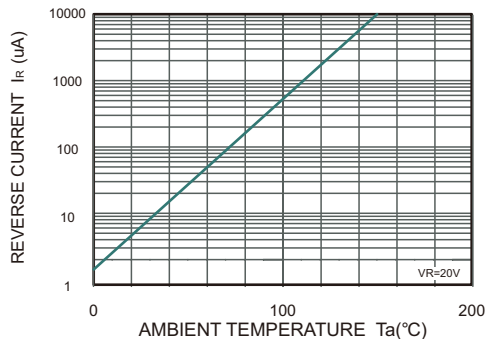
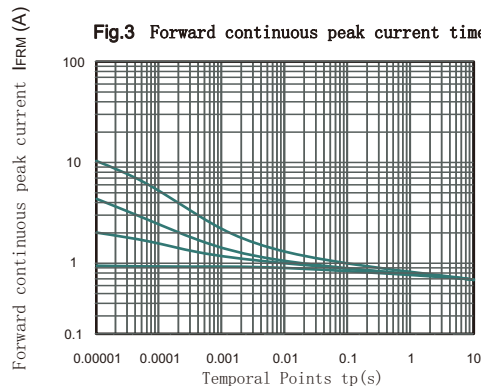
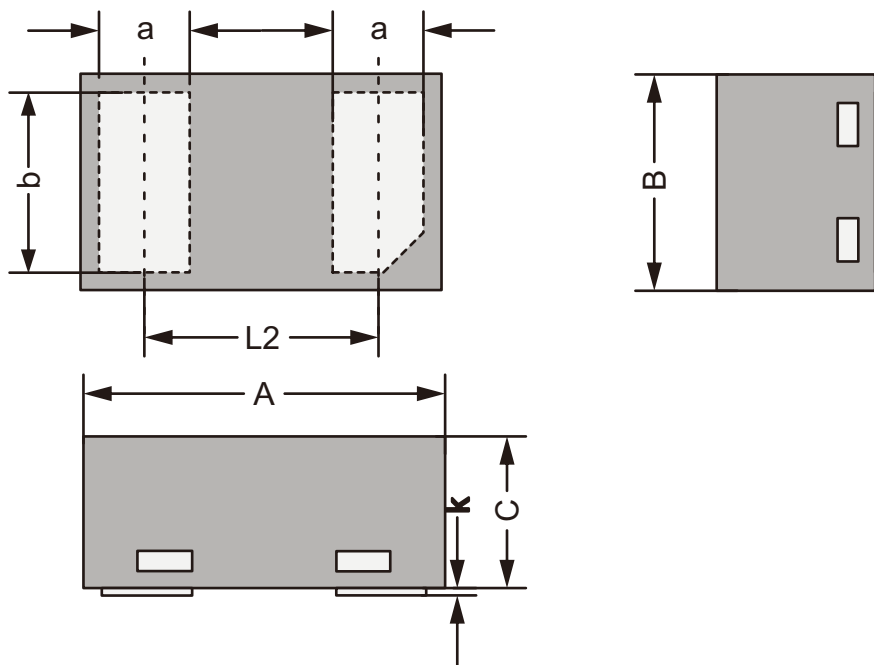


Fig.3 Forward continuous peak current time curve





DFN1006-2L Package Outline Dimensions



DFN1006-2L mechanical data

UNIT		A	B	C	L2	a	b	k
mm	max	1.05	0.65	0.55	0.65 REF	0.29	0.54	0.03
	min	0.95	0.55	0.45		0.21	0.46	0.00
mil	max	41.34	25.59	21.65	25.59 REF	11.42	21.26	55.12
	min	37.40	21.65	17.72		8.27	18.11	1.18

Marking description



Marking

Type number	Marking code
1N4148WDF	D4