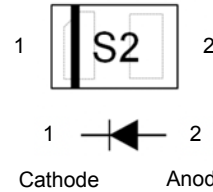


Features

- Fast switching devices
- Low reverse leakage current
- RoHS compliant
- UL-94 V-0 / green EMC
- Matte tin lead finish (Pb-Free)



Schematic Diagram



DFN1006

Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Repetitive Peak Forward Current ($t_p \leq 0.5\mu\text{s}$, $\delta \leq 0.25$)	I_{FRM}	500	mA
Average Forward Current	I_O	215	mA
Non-Repetitive Peak Forward Current ¹	$t_p=1\mu\text{s}$	4	A
	$t_p=1\text{ms}$	1	
	$t_p=1\text{s}$	0.5	
Power Dissipation	P_D	250	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note:

1. $T_J=25^{\circ}\text{C}$ prior to surge.

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R=100\mu\text{A}$	75	-	-	V
Forward Voltage	V_F	$I_F=5\text{mA}$	0.62	-	0.72	V
		$I_F=10\text{mA}$	-	-	0.855	
		$I_F=100\text{mA}$	-	-	1.0	
		$I_F=150\text{mA}$	-	-	1.25	
Reverse Leakage Current	I_R	$V_R=80\text{V}$	-	-	100	nA
		$V_R=20\text{V}$	-	-	25	
Capacitance	C	$V_R=0.5\text{V}$, $F=1\text{MHz}$	-	-	3	pF
Reverse Recovery Time	T_{RR}	$I_F=I_R=10\text{mA}$, $I_{RR}=1\text{mA}$, $R_L=100\Omega$	-	-	4	nS

Typical Characteristic Curves

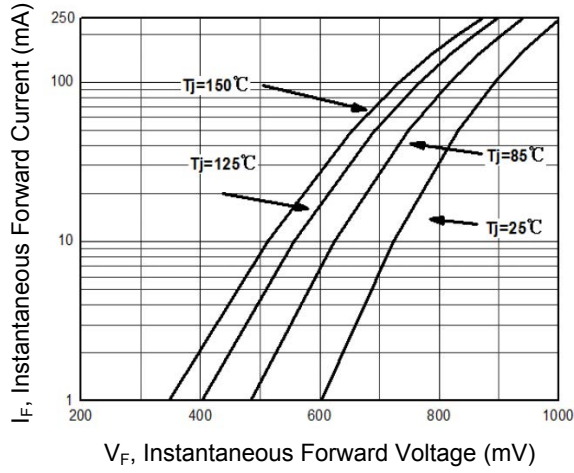


Figure 1. Forward Current vs. Forward Voltage

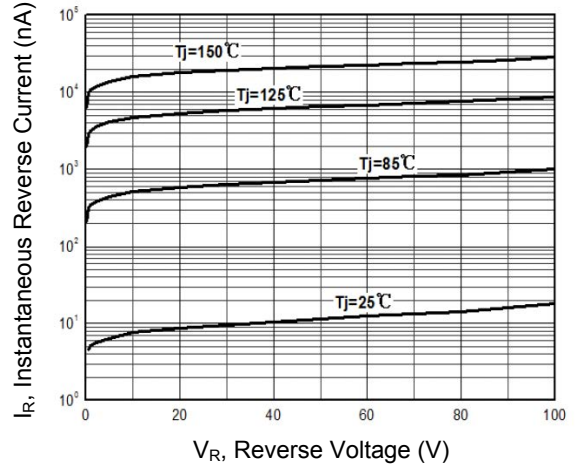


Figure 2. Reverse Current vs. Reverse Voltage

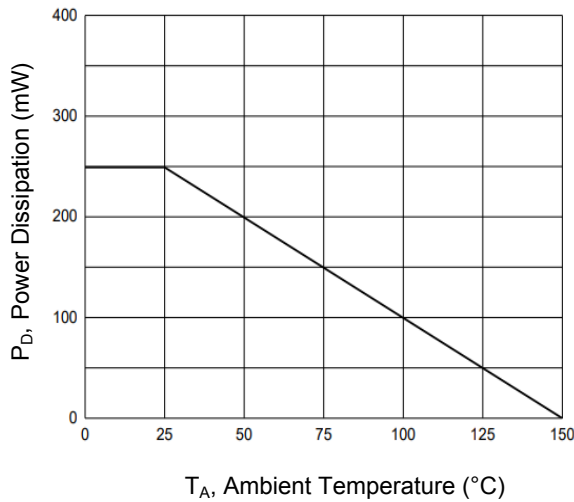


Figure 3. Power Derating Curve

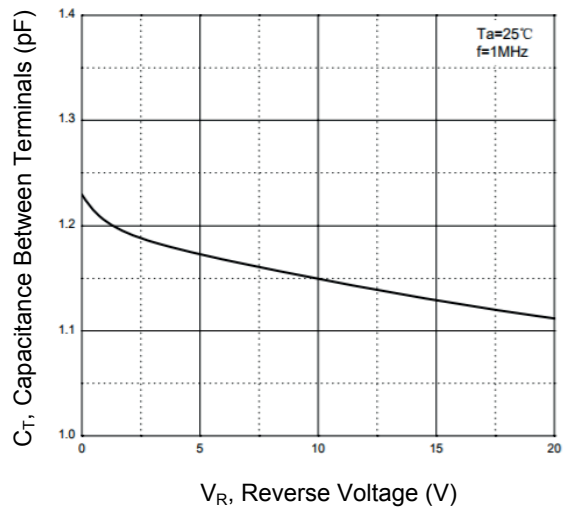
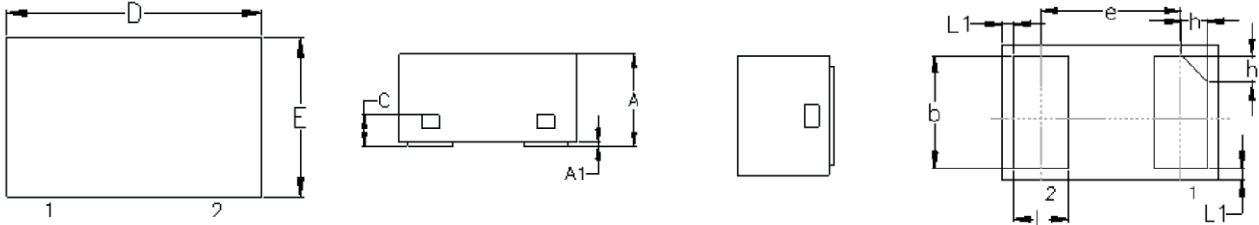


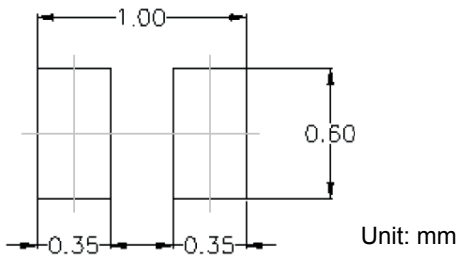
Figure 4. Capacitance vs. Reverse Voltage

Package Outline Dimensions (DFN1006)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.45	0.55	0.018	0.022
A1	0.00	0.05	0.000	0.002
b	0.45	0.55	0.018	0.022
C	0.12	0.18	0.005	0.007
D	0.95	1.05	0.037	0.041
e	0.65 BSC		0.026 BSC	
E	0.55	0.65	0.022	0.026
L	0.20	0.30	0.008	0.012
L1	0.05 REF		0.002 REF	
h	0.07	0.17	0.003	0.007

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
BAS16L	DFN1006	S2	Tape & Reel	10,000 pcs / 7" Reel