

Features

- Low turn-on voltage
- Fast switching
- Ultra-small surface mount package
- Lead free/RoHS compliant



DFN1006

Mechanical Data

- Case material: molded plastic, "green" molding compound, compliant to UL flammability classification rating 94V-0
- Moisture sensitivity: level 1 per J-STD-020
- Terminal connections: cathode bar
- Terminals finish - NiPdAu annealed over copper lead frame solderable per MIL-STD-202, method 208
- Weight: 0.001 grams (approximately)



Schematic Diagram



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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse	V _{RRM}	70	V
Voltage Working Peak Reverse	V _{RWM}		
Voltage DC Blocking Voltage	V _R		
Forward Continuous Current ¹	I _{FM}	70	mA
Non-Repetitive Peak Forward Surge Current @ t<1.0s	I _{FSM}	800	mA
Power Dissipation ¹	P _D	430	mW
Thermal Resistance, Junction to Ambient Air ¹	R _{θJA}	295	°C/W
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage ²	V _{(BR)R}	I _R =10μA	70	-	-	V
Forward Voltage	V _F	I _F =1.0mA	-	-	400	mV
		I _F =15mA	-	-	960	
Reverse Leakage Current ²	I _R	V _R =50V	-	-	0.04	uA
		V _R =70V	-	-	2	
Total Capacitance	C _T	V _R =0V, F=1.0MHz	-	2.0	-	pF
Reverse Recovery Time	T _{rr}	I _F =I _R =10mA, I _{rr} =0.1I _R	-	-	5.0	nS

Notes:

1. Device mounted on FR-4 PC board with recommended pad layout
2. Short duration pulse test used to minimize self-heating effect.

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

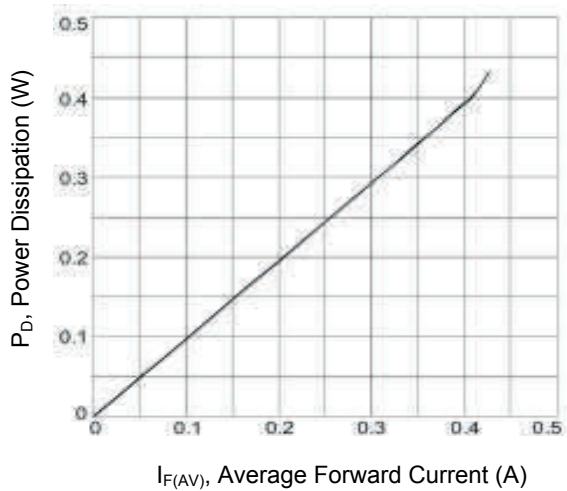


Figure 1. Forward Power Dissipation

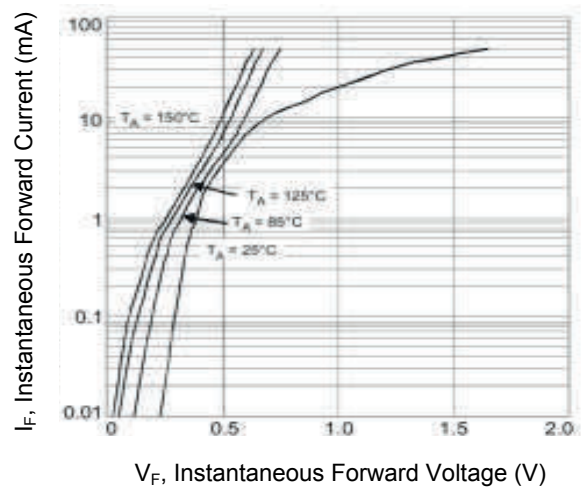


Figure 2. Typical Forward Characteristics

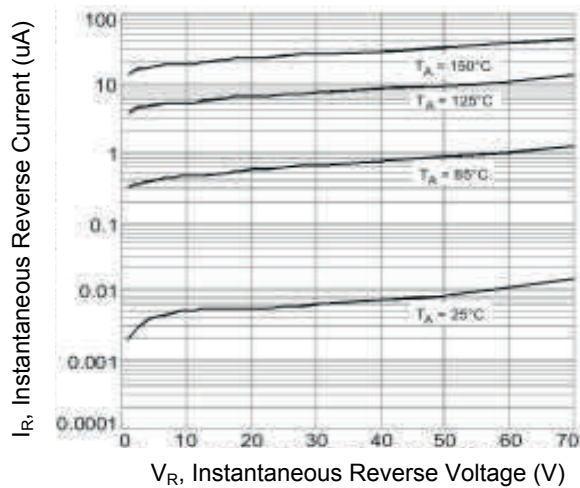


Figure 3. Typical Reverse Characteristics

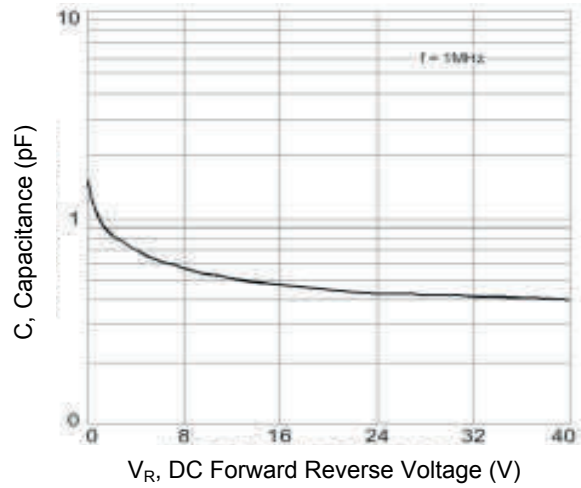


Figure 4. Total Characteristics VS. Reverse Voltage

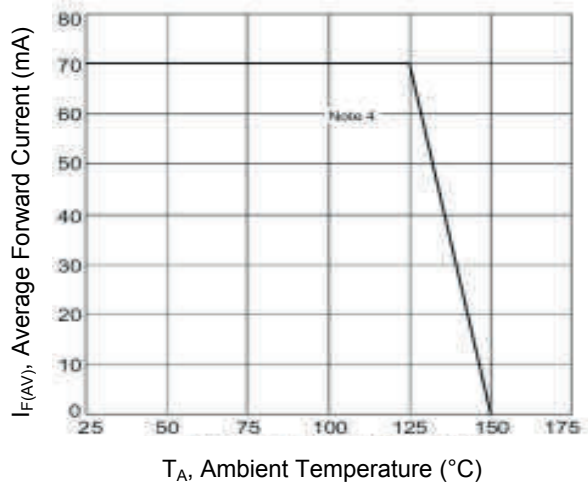


Figure 5. Forward Current Derating Curve

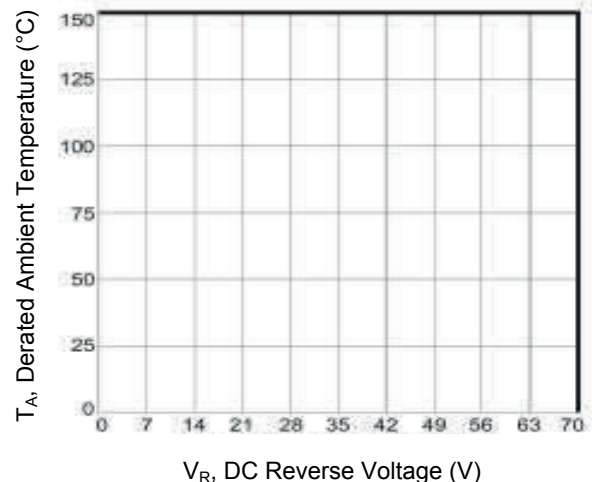
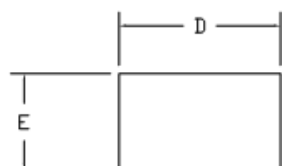
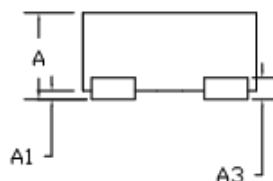


Figure 6. Operating Temperature Derating

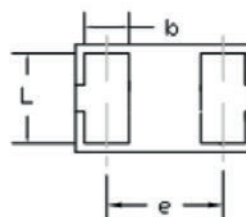
Package Outline Dimensions (DFN1006-2)



TOP VIEW



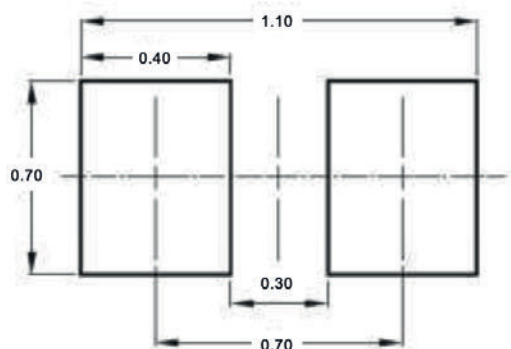
SIDE VIEW



BOTTOM VIEW

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.40	0.50	0.016	0.020
A1	0.00	0.05	0.000	0.002
A3	0.125 REF		0.005 REF	
D	0.95	1.05	0.037	0.041
E	0.55	0.65	0.022	0.026
b	0.20	0.30	0.008	0.012
L	0.45	0.55	0.018	0.022
e	0.65 BSC		0.026 BSC	

Recommended Pad Layout



Unit: mm

Order Information

Device	Package	Marking	Quantity	HSF Status
BAS5711LP	DFN1006	*N (* various by lot)	10,000 pcs / Reel	RoHS Compliant