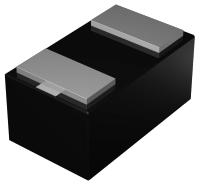
GOOD-ARK
SEMICONDUCTOR

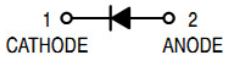
BAS5711LP
Schottky Barrier Diode

Features

- Low Turn-on Voltage
- Fast Switching
- Ultra-Small Surface Mount Package
- Lead Free/RoHS Compliant



Package: DFN1006-2



Schematic Diagram

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 Dot
- Terminals Finish - NiPdAu annealed over Copper lead frame solderable per MIL-STD-202, Method 208
- Weight: 0.001 grams (approximately)

Applications

- Mobile Handsets
- MP3 Players
- Digital Camera and Camcorders
- Notebook PCs & PDAs
- GPS

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

Symbol	Parameter	Value	Unit
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	70	V
I_{FM}	Forward Continuous Current (Note 1)	70	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @ t < 1.0s	800	mA

Thermal Characteristics

Symbol	Parameter	Value	Unit
P_D	Power Dissipation (Note 1)	430	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Air (Note 1)	295	°C/W
T_J	Operating Temperature Range	-55~+150	°C
T_{STG}	Storage Temperature Range	-55~+150	°C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	I_R = 10μA	70	-	-	V
Forward Voltage	V_F	I_F = 1.0mA I_F = 15mA	-	-	400 960	mV
Reverse Leakage Current (Note 2)	I_R	V_R = 50V V_R = 70V			0.04 2	uA
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 mini mize self- heating effect.

Electrical Characteristic Curves (T_A=25°C unless otherwise specified)

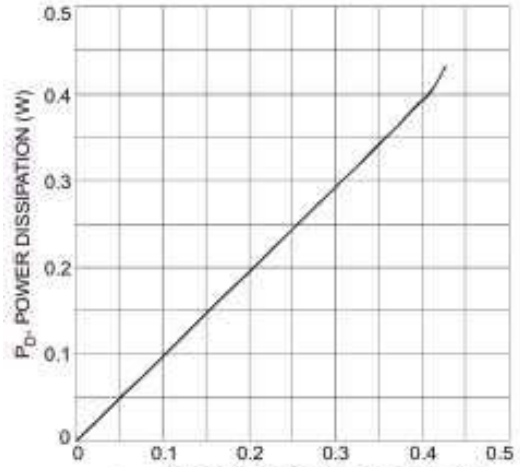


Fig. 1 Forward Power Dissipation

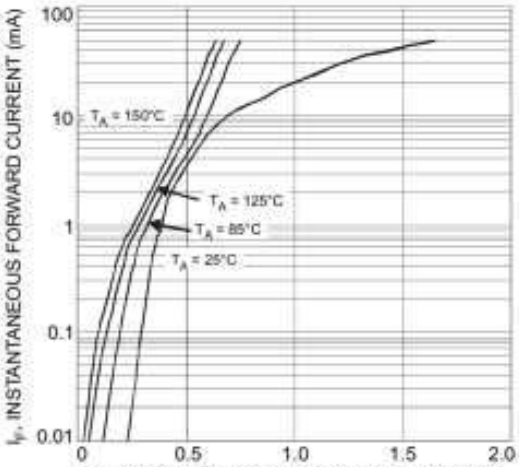


Fig. 2 Typical Forward Characteristics

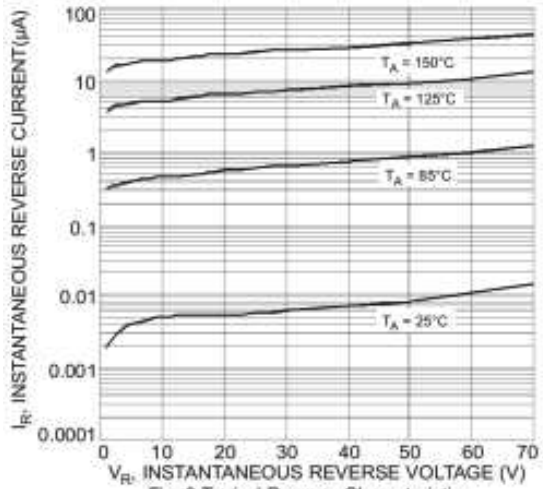


Fig. 3 Typical Reverse Characteristics

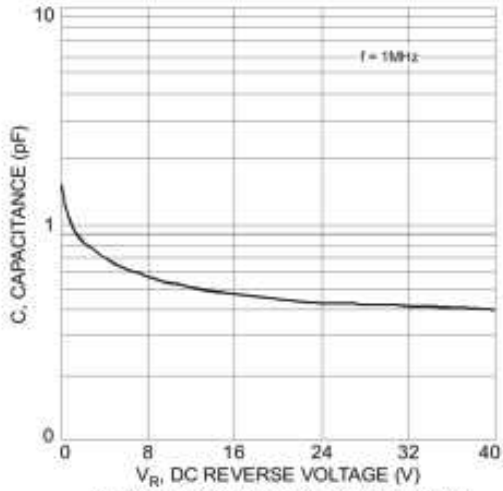


Fig. 4 Total Capacitance vs. Reverse Voltage

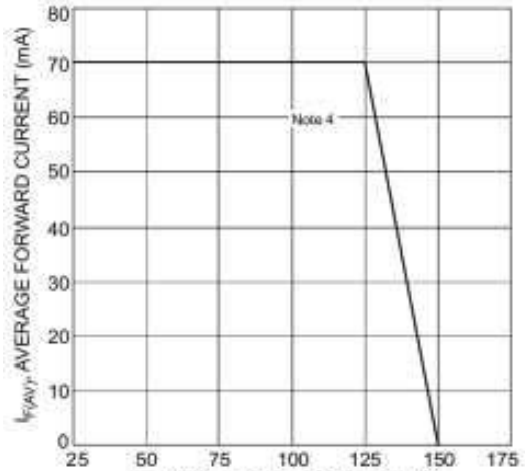


Fig. 5 Forward Current Derating Curve

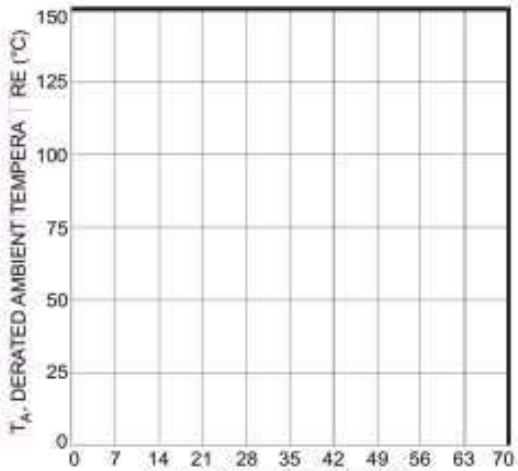
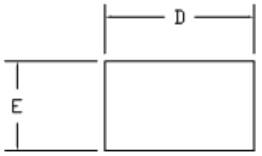


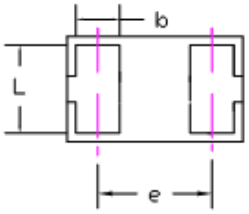
Fig. 6 Operating Temperature Derating

Package Outline Dimensions

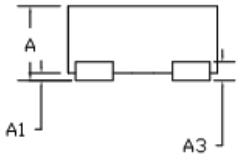
DFN1006-2 Package Outline (dimensions in mm)



TOP VIEW



BOTTOM VIEW

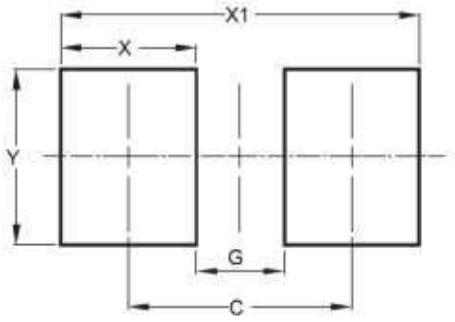


SIDE VIEW

Lead finish: NiPdAu

COMMON DIMENSIONS (MM)			
PKG.	DFN1006-2L		
REF.	MIN.	NOM.	MAX.
A	>0.40	-	0.50
A1	0.00	-	0.05
A3	0.125REF		
D	0.95	1.00	1.05
E	0.55	0.60	0.65
b	0.20	0.25	0.30
L	0.45	0.50	0.55
e	0.65 BSC		

Suggested Pad Layout



DIMENSIONS	VALUE (MM)
C	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70