Switching Diode
BAS16L

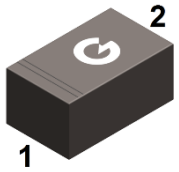
Features

- Repetitive peak forward current
- High switching speed
- Continuous reverse voltage
- Repetitive peak reverse voltage

HF

Mechanical Data

- Case: DFN1006-2
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



DFN1006-2

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAS16L	DFN1006-2	10000 pcs / Tape & Reel	A6

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	75	V
Average Rectified Output Current	I_F	215	mA
Peak Forward Surge Current, 1μs Single Half-sine-wave	I_{FSM}	4	A
Peak Forward Surge Current, 1ms Single Half-sine-wave	I_{FSM}	1	A
Peak Forward Surge Current, 1s Single Half-sine-wave	I_{FSM}	0.5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	250	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	162	°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	85	°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	160	°C/W
Operating Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F = 1mA	-	-	0.715	V
		I_F = 10mA	-	-	0.855	V
		I_F = 50mA	-	-	1.000	V
		I_F = 150mA	-	-	1.250	V
Maximum Peak Reverse Current	I_R	V_R = 25V	-	-	30	nA
		V_R = 75V	-	-	1	μA
		V_R = 25V, T_J = 150°C	-	-	30	μA
		V_R = 75V, T_J = 150°C	-	-	50	μA
Total Capacitance	C_J	V_R = 0V, f = 1.0MHz	-	-	1.5	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mA I_{rr} = 0.1×I_R, R_L = 100Ω	-	-	4	ns

Note 1: The data tested by surface mounted on a 18mm * 15mm * 1mm FR4-epoxy P.C.B

Ratings and Characteristics Curves (@ T_A = 25°C unless otherwise specified)

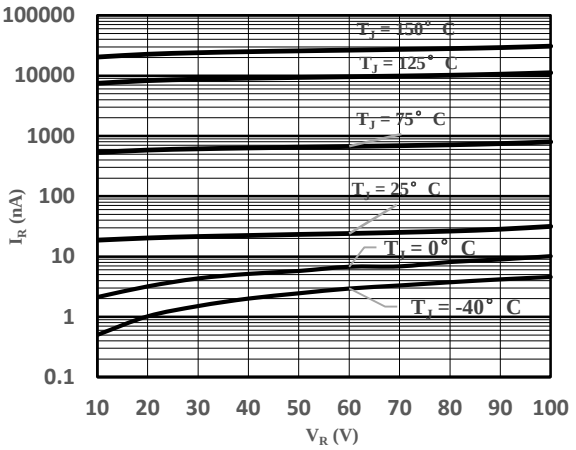


Fig 1 Typical Reverse Characteristic

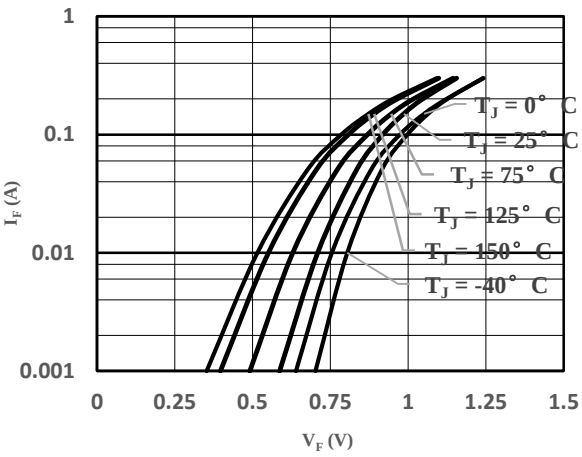


Fig 2 Typical Forward Characteristics

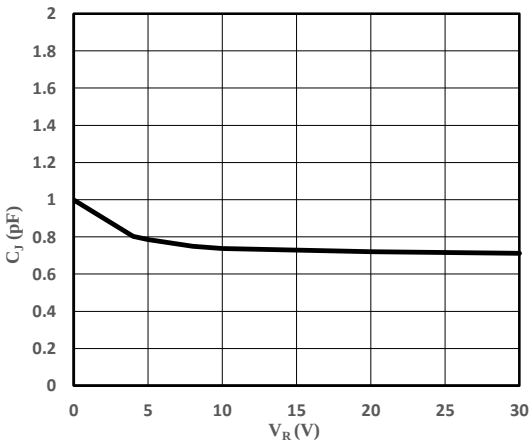
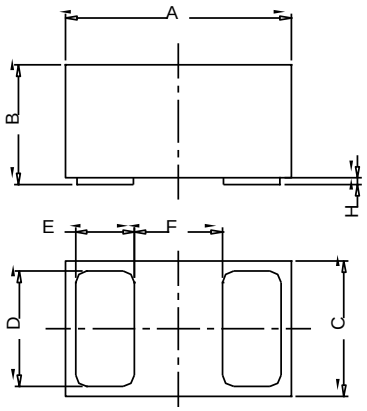


Fig 3 Capacitance vs. Reverse Voltage

Package Outline Dimensions (Unit: mm)



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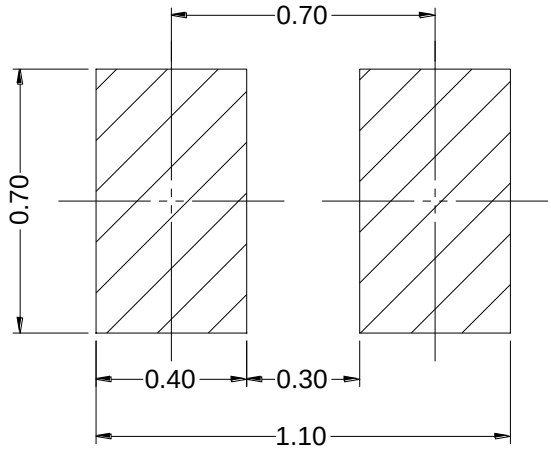
Dimension	**Min.**	**Typ.**	**Max.**
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

Package Outline Dimensions (Unit: mm)

DFN1006-2



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