

GSBAS40LP1

Small Signal Schottky Diode

Features

- Low forward voltage
- Low leakage current
- Fast switching
- Plastic material-UL recognition flammability classification 94V-0



DFN1006



Schematic Diagram

Mechanical Data

- Case: DFN1006
- Terminals: solderable per MIL-STD-202, Method 208

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

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Working Peak Reverse Voltage	V _{RWM}	40	
DC Reverse Voltage	V _R	40	
Average Rectified Forward Current ¹	I _{FM}	200	mA
Peak Forward Surge Current (8.3ms Single Sine Pulse)	I _{FSM}	600	mA
Power Dissipation ¹	P _d	100	mW
Thermal Resistance, Junction to Ambient ¹	R _{θJA}	1000	°C/W
Junction Temperature Range	T _j	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +125	°C

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

Parameter	Symbol	Conditions	Typ	Max	Unit
Forward Voltage ²	V _F	I _F =1mA	-	0.38	V
		I _F =10mA	-	0.65	V
		I _F =40mA	-	1	V
Reverse Leakage Current ³	I _R	V _R =30V	-	0.2	μA
Capacitance Between Terminals	C _T	V _R =0V, f=1MHz	2.5	5	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA, I _{RR} =0.1I _R	-	5	ns

Note:

1. Part mounted on FR-4 board with recommended pad layout.
2. pulse test, t_p≤300μs
3. pulse test, t_p≤5ms

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

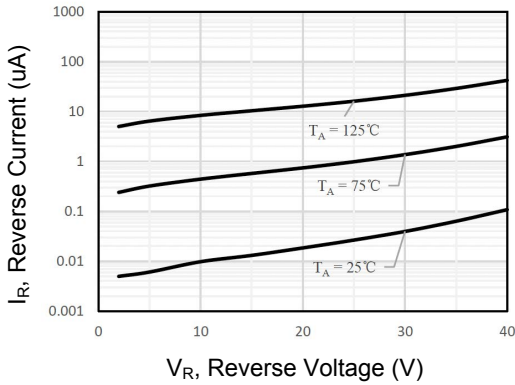


Figure 1. Typical Reverse Characteristic

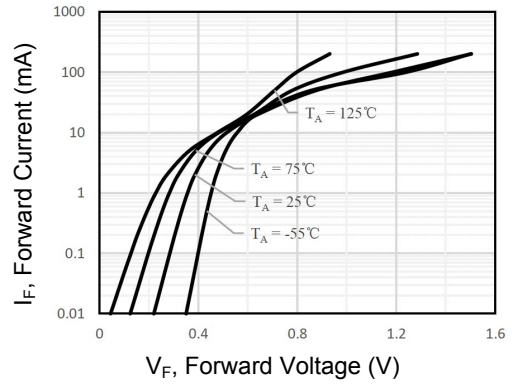


Figure 2. Typical Forward Characteristic

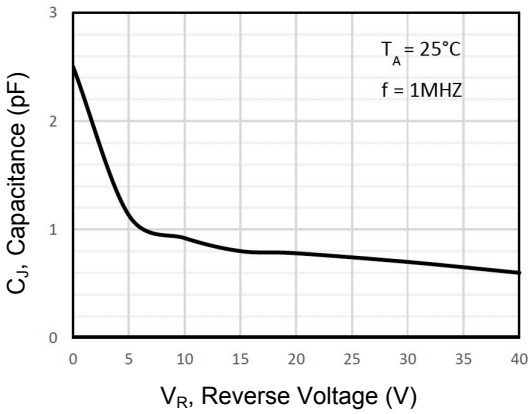


Figure 3. Capacitance vs. Reverse Voltage

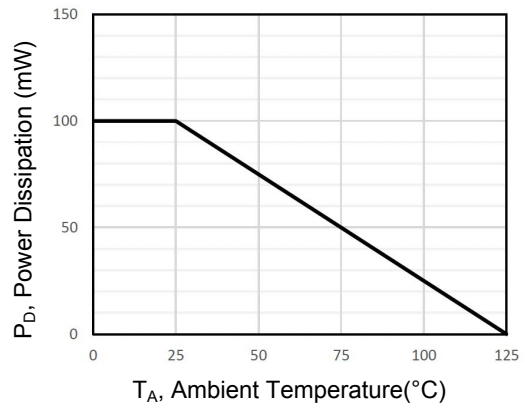
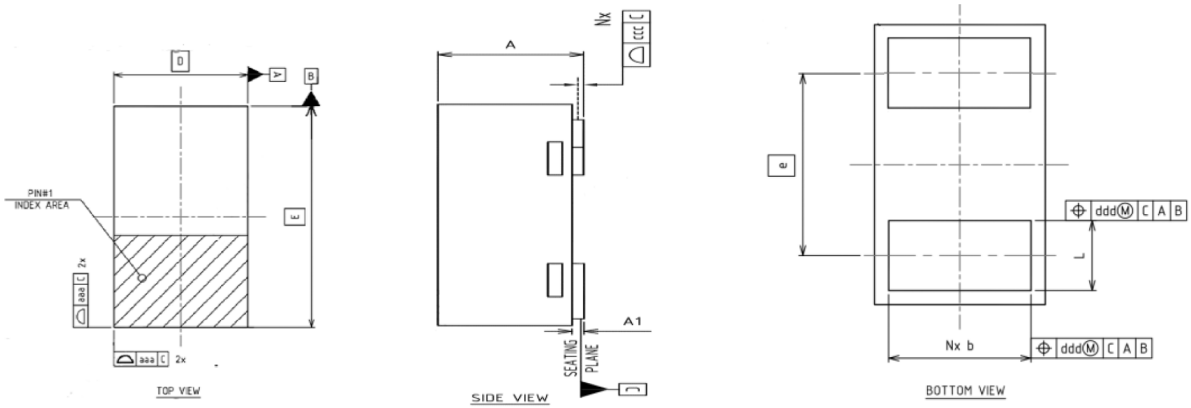


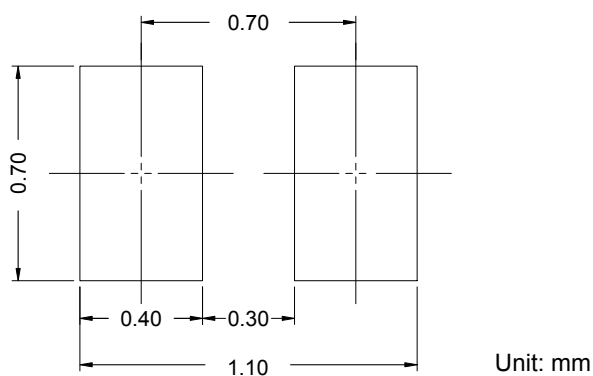
Figure 4. Derating Curve (P_D-T_A)

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
D	0.55	0.65	0.022	0.026
E	0.95	1.05	0.037	0.041
e	0.65 BSC		0.026 BSC	
L	0.20	0.30	0.008	0.012
aaa	0.05		0.002	
ccc	0.03		0.001	
ddd	0.10		0.004	
N	2 (number of terminals)		-	

Recommended Pad Layout



Order Information

Device	Package	Marking	Reel Size	Quantity
GSBAS40LP1	DFN1006	43	7 inches	10,000pcs / Reel