

# GSBAS40LP

## Small Signal Schottky Diode

### Features

- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection
- Designed for surface mount application
- Plastic material-UL recognition flammability classification 94V-O



DFN1006

### Mechanical Data

- Case: DFN1006-2
- Terminals: solderable per MIL-STD-202, Method 208



Schematic Diagram

### Maximum Ratings ( $T_A = 25^\circ\text{C}$ 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	
Forward Continuous Current <sup>1</sup>	$I_{FM}$	200	mA
Forward Surge@8.3ms	$I_{FSM}$	600	mA
Power Dissipation <sup>1</sup>	$P_d$	100	mW
Thermal Resistance, Junction to Ambient <sup>1</sup>	$R_{\theta JA}$	1000	$^\circ\text{C}/\text{W}$
Junction Temperature Range	$T_j$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Typ	Max	Unit
Forward Voltage <sup>2</sup>	$V_F$	$I_F=1\text{mA}$	-	0.38	V
		$I_F=10\text{mA}$	-	0.65	V
		$I_F=40\text{mA}$	-	1	V
Reverse Leakage Current <sup>3</sup>	$I_R$	$V_R=30\text{V}$	-	0.2	$\mu\text{A}$
Capacitance Between Terminals	$C_T$	$V_R=0\text{V}, f=1\text{MHz}$	2.5	5	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10\text{mA}, R_L=100\Omega$	-	5	ns

Note:

1. Part mounted on FR-4 board with recommended pad layout.
2. pulse test,  $t_p \leq 300\mu\text{s}$
3. pulse test,  $t_p \leq 5\text{ms}$

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

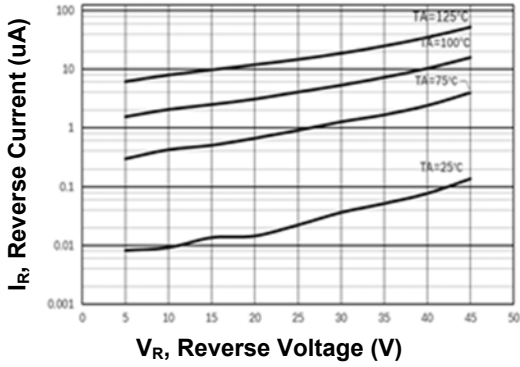


Figure 1. Typical Reverse Characteristic

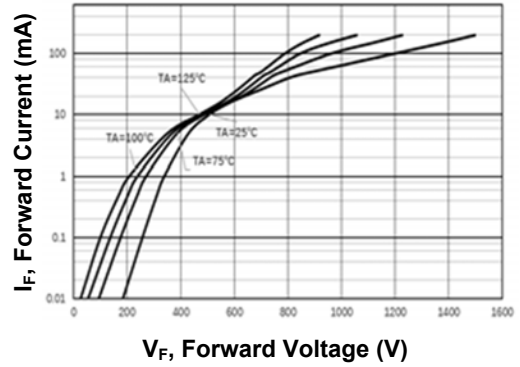


Figure 2. Typical Forward Characteristic

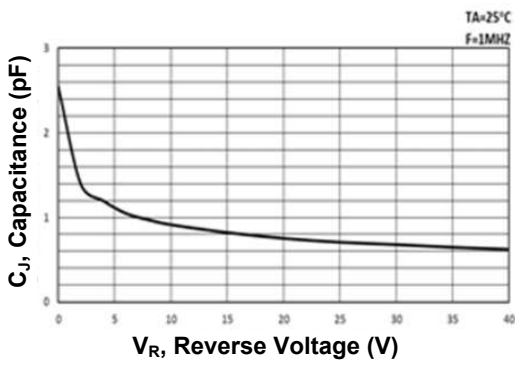


Figure 3. Capacitance VS Reverse Voltage

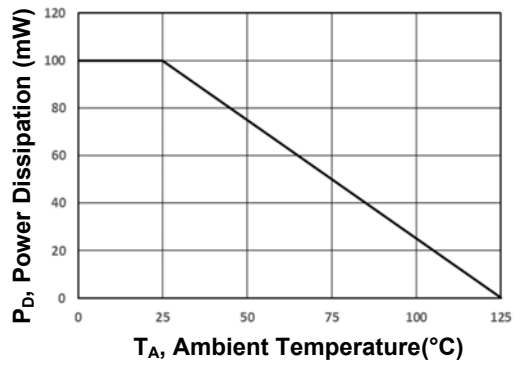
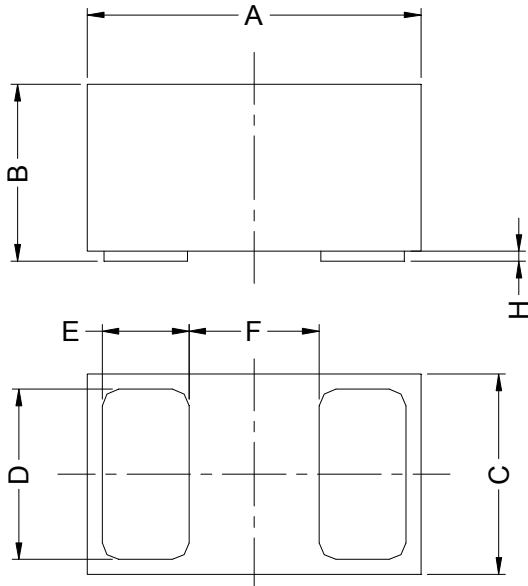


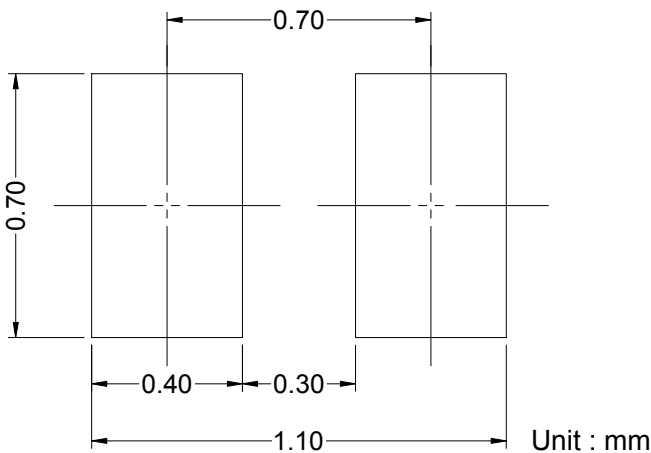
Figure 4. Derating Curve ( $P_D$ - $T_A$ )

**Package Outline Dimensions DFN1006-2**



DFN1006-2 (unit:mm)			
Dim	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

**Recommended Pad Layout**



**Order Information**

Device	Package	Marking	Reel Size	Quantity
GSBAS40LP	DFN1006	43	7 inches	10,000pcs / Reel