GOOD-ARK SEMICONDUCTOR

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°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Roltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}	40	
DC Reverse Voltage	V_R	40	
Forward Continuous Current[1]	I_{FM}	200	mA
Forward Surge@8.3ms	I_{FSM}	600	mA
Power Dissipation[1]	P_d	100	mW
Thermal Resistance, Junction to Ambient[1]	$R_{\theta JA}$	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,R_L=100Ω	-	5	ns

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

Typical Characteristic Curves(T_A = 25°C unless otherwise noted)

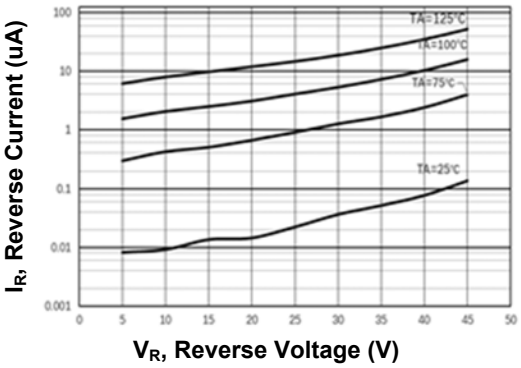


Figure 1. Typical Reverse Characteristic

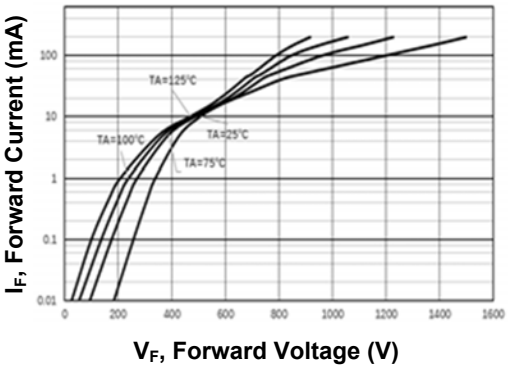


Figure 2. Typical Forward Characteristic

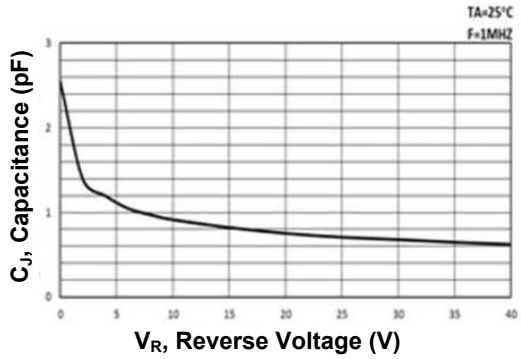


Figure 3. Capacitance VS Reverse Voltage

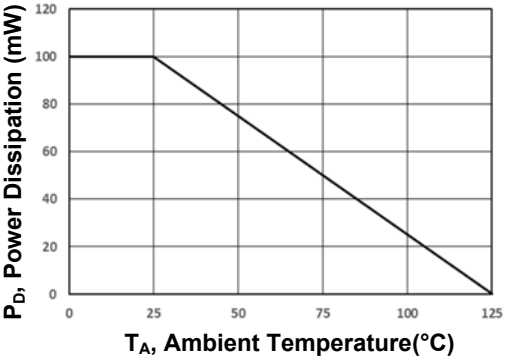
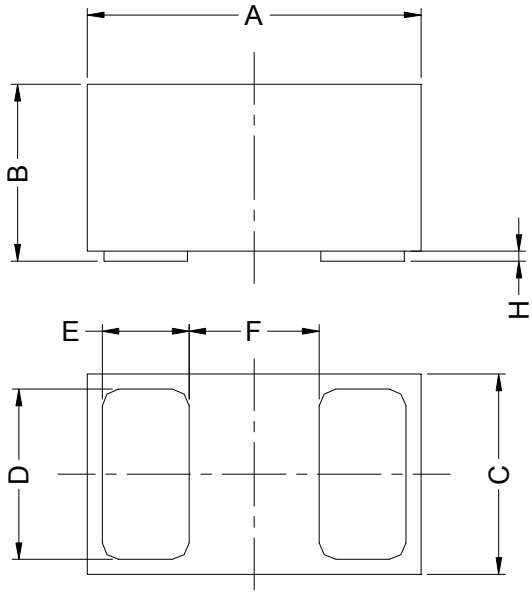


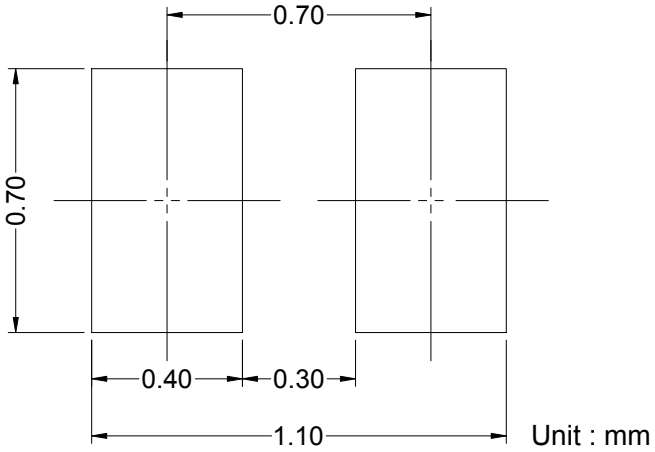
Figure 4. Derating Curve (Pd-TA)

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

Recommened Pad Layout



Unit : mm