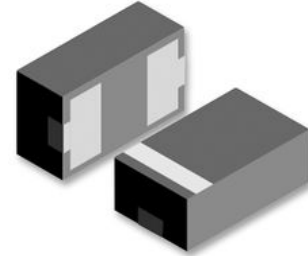


Features

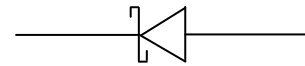
- Small body outline dimensions
- Very low forward voltage
- Forward current: 0.5A
- Reverse voltage: 30V
- MSL: Lever 1 – unlimited



DFN1006-2

Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Low voltage rectification
- High efficiency DC-to-DC conversion
- Low power consumption applications



Schematic Diagram

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

Parameter	Symbol	Condition	Min	Max	Unit
Continuous Reverse Voltage	V _R RM		-	30	V
Repetitive Peak Forward Current	I _F RM	t _p ≤ 1mS; δ ≤ 0.25	-	2.5	A
Continuous Forward Current	I _F		-	0.5	A
Non-repetitive Peak Forward Current	I _F SM	t = 8mS square wave	-	3.0	A
Junction Temperature	T _J		-	150	°C
Operating Ambient Temperature	T _{AMB}		-65	+150	°C
Storage Temperature	T _{STG}		-65	+150	°C

Notes:

For Schottky barrier diodes thermal run-away has to be considered, as in some applications the reverse power losses PR are a significant part of the total power losses. Nomograms for determining the reverse power losses PR and I_{F(AV)} rating will be available on request.

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

Parameter	Symbol	Condition	Typ	Max	Unit
Continuous Forward Voltage	V_F	$I_F=0.1\text{mA}$	100	180	mV
		$I_F=1\text{mA}$	160	240	mV
		$I_F=10\text{mA}$	250	310	mV
		$I_F=100\text{mA}$	360	400	mV
		$I_F=500\text{mA}$	650	750	mV
Continuous Reverse Current	I_R	$V_R=10\text{V}$	4	30	μA
		$V_R=20\text{V}$	10	100	μA
		$V_R=30\text{V}$	15	150	μA
Diode Capacitance	C_d	$V_R=1\text{V}; f=1\text{MHz}$	24	-	pF

Pulse test: $t_p \leq 300\mu\text{s}$; $\delta \leq 0.02$

Typical Characteristic Curves

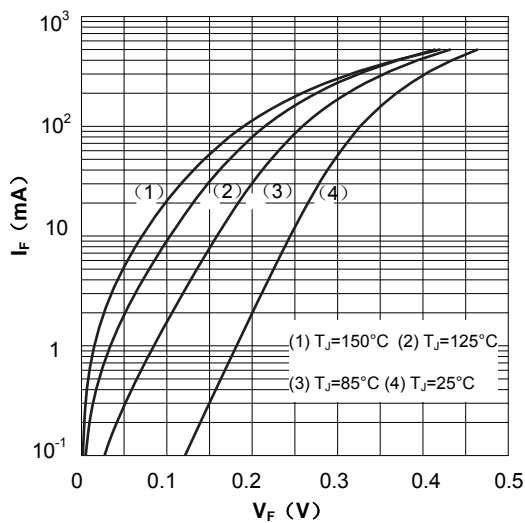


Fig.1 Forward current as a function of forward voltage (typical values)

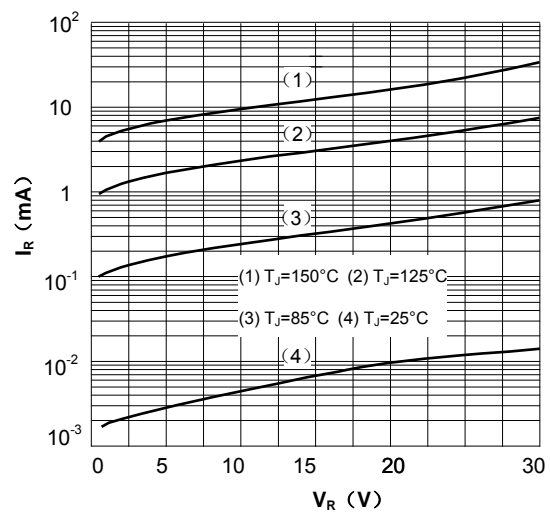


Fig.2 Reverse current as a function of reverse voltage (typical values)

Typical Characteristic Curves

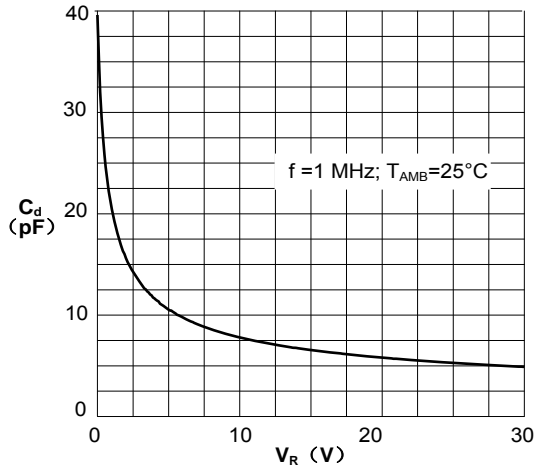
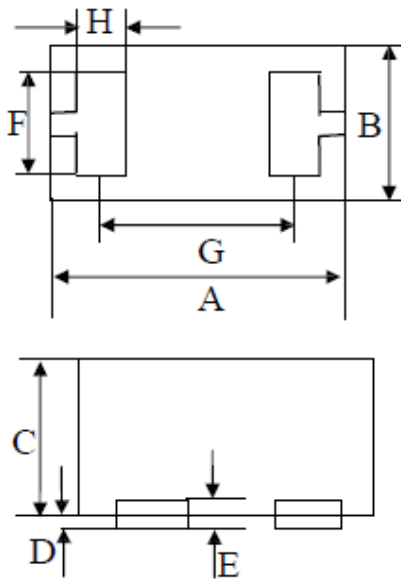


Fig.3 Diode capacitance as a function of reverse Voltage; typical values

Package Outline Dimensions DFN1006-2



Dim	millimeters	
	min	max
A	0.95	1.05
B	0.55	0.65
C	0.45	0.55
D	0.00	0.05
E	0.125REF	
F	0.45	0.55
G	0.65BSC	
H	0.20	0.30

Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
GSDH3005	DFN1006-2	F5	Tape & Reel	8000pcs / Reel	RoHS compliant