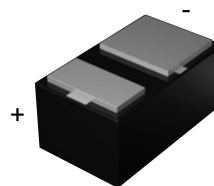


Features

- Low Forward Voltage Drop
- Small power mold type
- Low I_R
- Small current rectification

Applications

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch mode power supply
- LED backlight for mobile application
- Low power consumption applications
- Ultra high-speed switching
- Reverse polarity Protection



DFN1608



Schematic Diagram

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Max.	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Output Current	I_o	1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	5	A
Power Dissipation	P_D	150	mW
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	667	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-40 To +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 To +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V_{BR}	$I_R=10\mu\text{A}$	40	-	-	V
Reverse Current	I_R	$V_R=40\text{V}$	-	-	50	μA
Forward Voltage	V_F	$I_F=0.7\text{A}$	-	-	0.55	V
Diode Capacitance	C_D	$V_R=1\text{V}$, $T_J=25^{\circ}\text{C}$, $F=1\text{MHz}$	-	50	-	pF
		$V_R=10\text{V}$, $T_J=25^{\circ}\text{C}$, $F=1\text{MHz}$	-	20	-	
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$, $R_L=100\Omega$, $I_R(\text{meas})=1\text{mA}$	-	15	-	nS

Typical Characteristics Curves

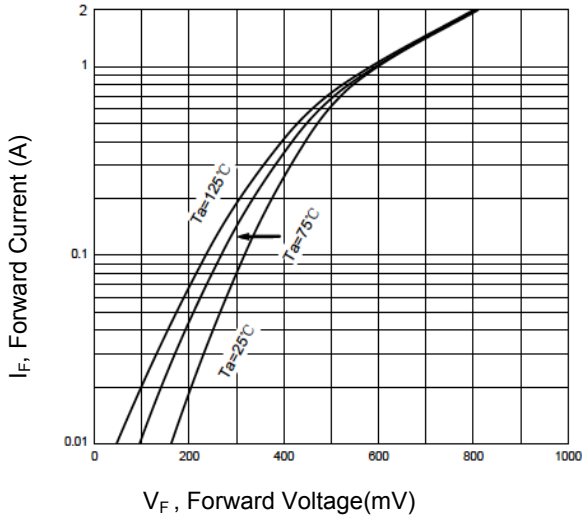


Figure 1. Forward Characteristics

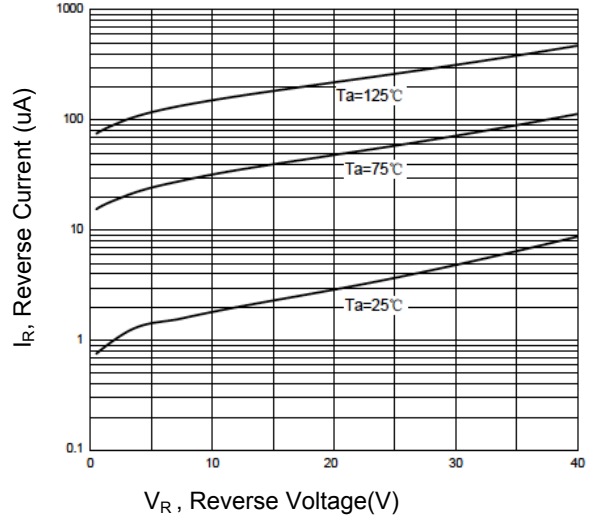


Figure 2. Reverse Characteristics

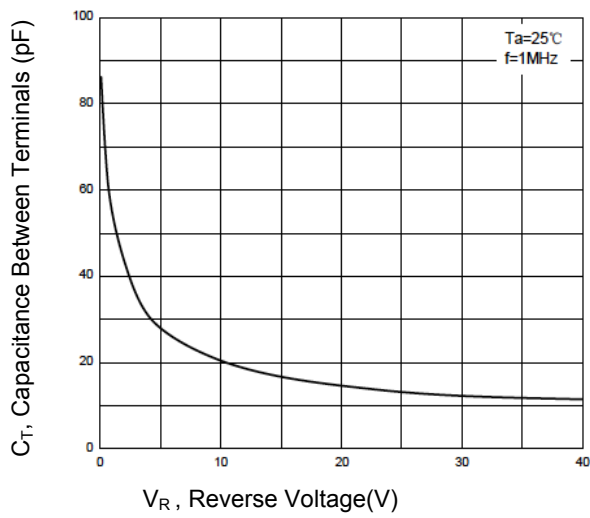


Figure 3. Capacitance Characteristics

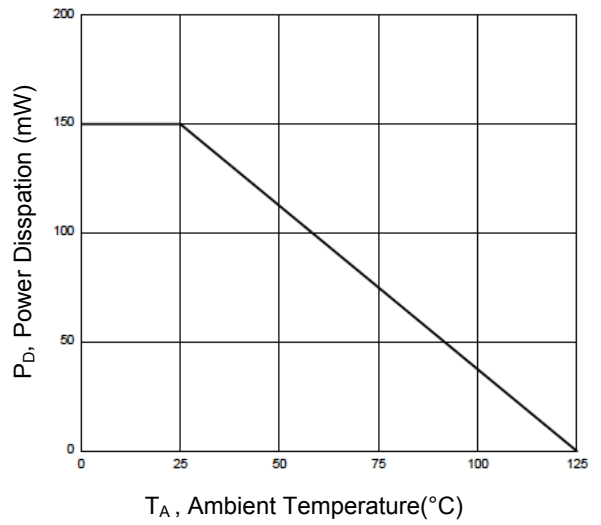
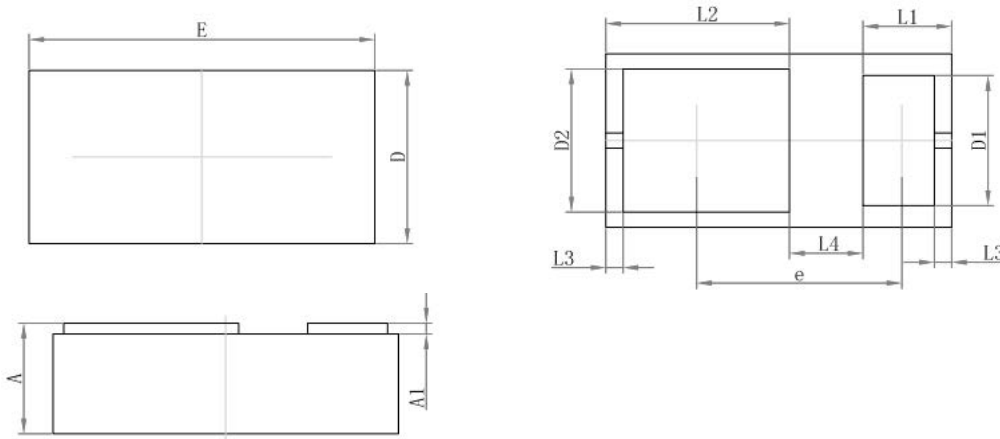


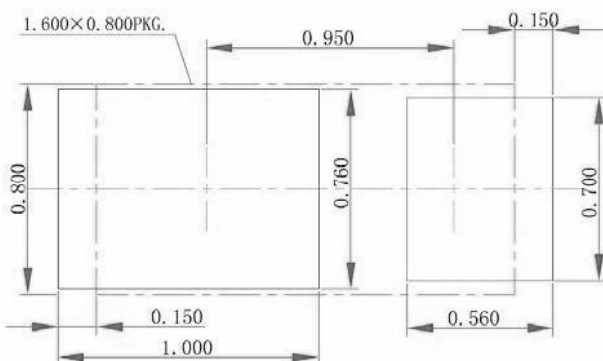
Figure 4. Power Derating Curve

Package Outline Dimensions DFN1608



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.010	0.090	0.000	0.004
D	0.750	0.850	0.030	0.033
D1	0.520	0.680	0.020	0.027
D2	0.600	0.760	0.024	0.030
E	1.550	1.650	0.061	0.065
L1	0.410 REF.		0.016 REF.	
L2	0.850 REF.		0.033 REF.	
L3	0.080 REF.		0.003 REF.	
L4	0.340 REF.		0.013 REF.	
e	0.900	1.000	0.035	0.039

Recommended Pad Layout



- Note:**
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.050 mm.
 3. The pad layout is for reference purposes only.

Marking and Ordering Information

Device	Package	Marking	Quantity	HSF
GSBD140	DFN1608	AD	10,000pcs / Reel	ROHS Compliant