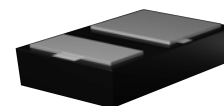


Features

- Low forward voltage drop
- Low reverse current
- Leadless ultra small SMD package



DFN1608

Applications

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Reverse polarity protection
- Low power consumption applications



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Working Peak Reverse Voltage	V _{RWM}	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Average Rectified Output Current	I _O	2	A
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I _{FSM}	15	A
Power Dissipation ¹	P _D	0.6	W
Thermal Resistance from Junction to Ambient ¹	R _{θJA}	167	°C/W
Operating Junction Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{SGT}	-55 to +150	°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V _(BR)	I _R =250μA	40	-	-	V
Reverse Current	I _R	V _R =20V	-	5	20	μA
		V _R =40V	-	10	50	μA
Forward Voltage	V _F	I _F =1.0A	-	0.42	0.45	V
		I _F =1.5A	-	0.46	0.5	V
		I _F =2.0A	-	0.52	0.58	V
Diode Capacitance	C _d	V _R =0V; f=1MHz;	-	180	-	pF

Notes: 1. Device mounted on FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per

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

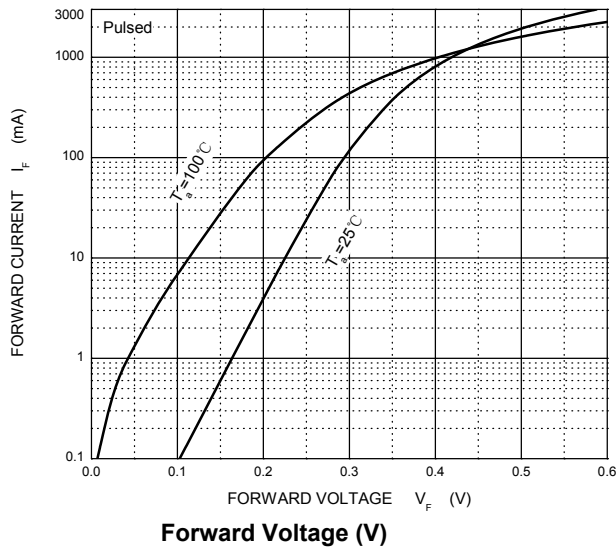


Figure 1. Forward Voltage vs. Forward Current

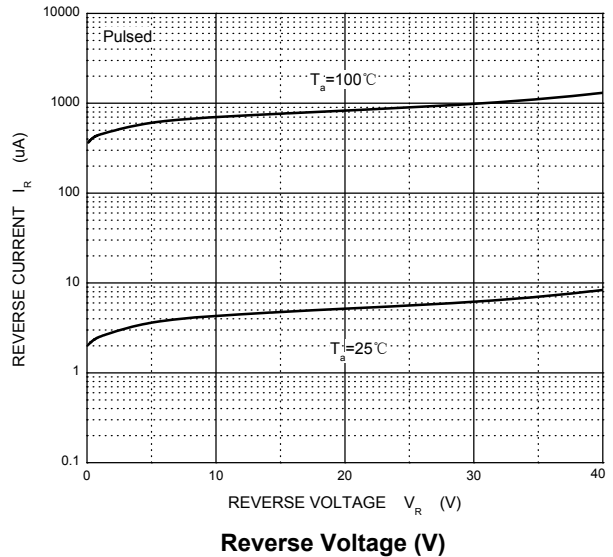


Figure 2. Reverse Current vs. Reverse Voltage

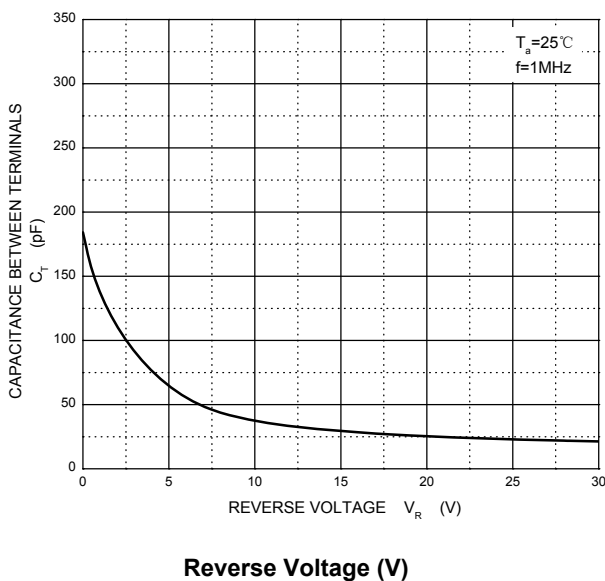


Figure 3. Junction Capacitance vs. Reverse Voltage

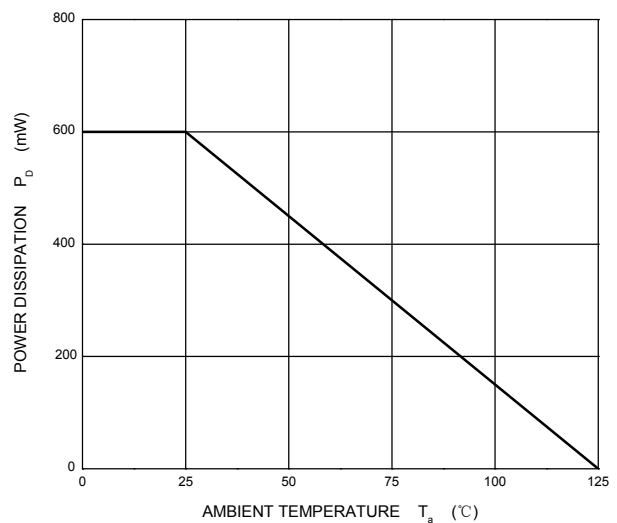
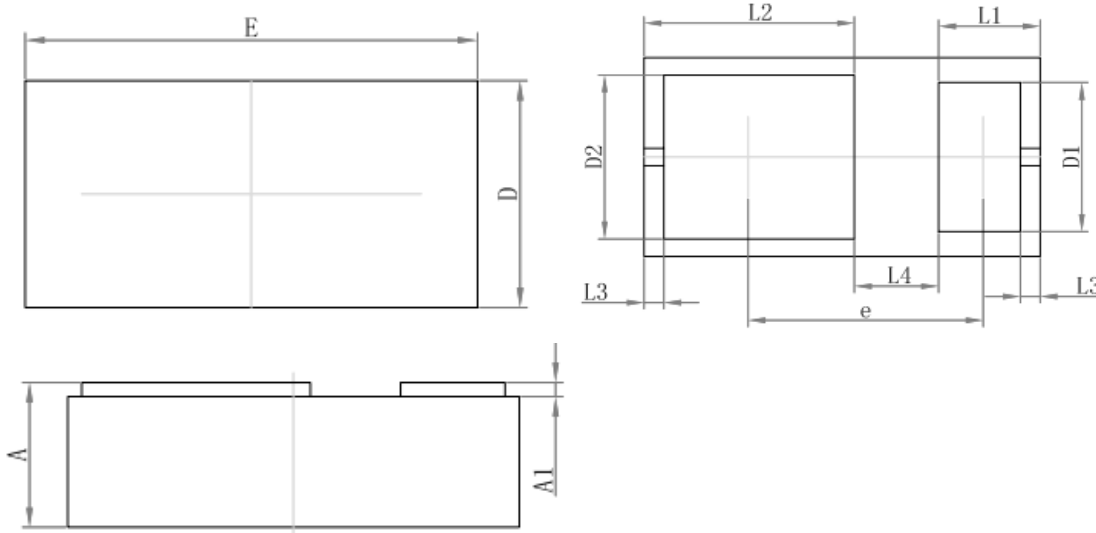


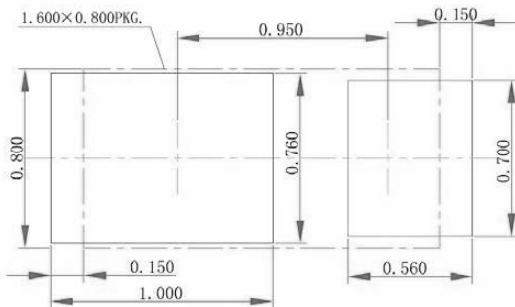
Figure 4. Power Derating Curve

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 (unit:mm)



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

Order Information

MPN	Package	Marking	Quantity	HSF Status
GSBD240	DFN1608	B	10000pcs / Reel	RoHS/HF Compliant

For more information, please contact us at: inquiry@goodarksemi.com