



# DFL1005 thru DFL110

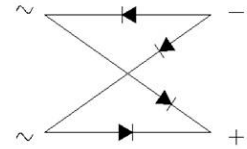
Surface Mount Glass Passivated Single Phase Bridge Rectifier  
Reverse Voltage 50~1000V Output Current 1A

## Features

- Glass passivated Standard Rectifiers
- Ideal for automated placement
- Very low profile - typical height of 1.9 mm
- High surge current capability
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- Polarity:As marked on body



**RoHS**  
COMPLIANT



DFL

## Mechanical Data

- Case:DFL,Molding compound meets UL 94V-0 flammability rating
- Weight:0.3435g

## Typical Applications

General purpose use in ac-to dc bridge full wave rectification for SMPS,lighting,adapter,charger,home appliances,office equipment,and telecommunication applications

Maximum Ratings (TA = 25 °C unless otherwise noted)									
Parameter	Symbol	DFL1005	DFL101	DFL102	DFL104	DFL106	DFL108	DFL110	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average output rectified current	Io(AV)	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	40							A
Rating for fusing (t≤8.3ms)	I <sup>2</sup> t	6							A <sup>2</sup> s
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	DFL1005	DFL101	DFL102	DFL104	DFL106	DFL108	DFL110	Unit
Maximum instantaneous forward voltage	IF=0.5 A	V <sub>F</sub>	1.0							V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I <sub>R</sub>	5							µA
	TA=125°C		100							
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	9							pF



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Thermal Characteristics (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	DFL1005	DFL101	DFL102	DFL104	DFL106	DFL108	DFL110	Unit
Typical thermal resistance <sup>1)</sup>	junction to ambient	R <sub>θJA</sub>	42							°C/W
	junction to case	R <sub>θJC</sub>	12							

Note:1),The thermal resistance from junction to ambient and case,mounted on P.C.B with 13x13mm copper pads,2 OZ,FR4 PCB

## Ratings and Characteristics Curves

(TA = 25 °C unless otherwise noted)

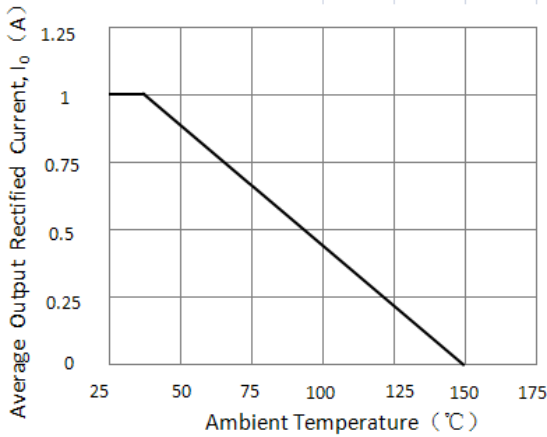


Figure 1.Forward Current Derating Curve

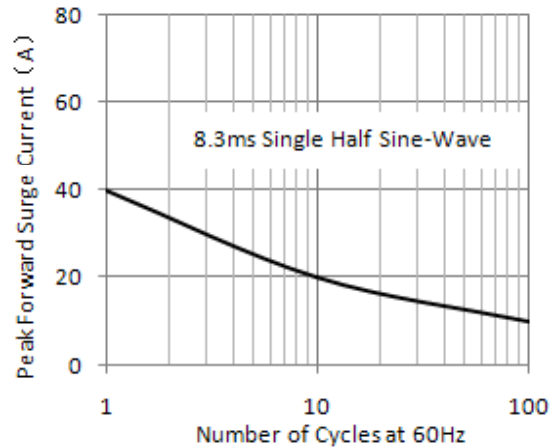


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

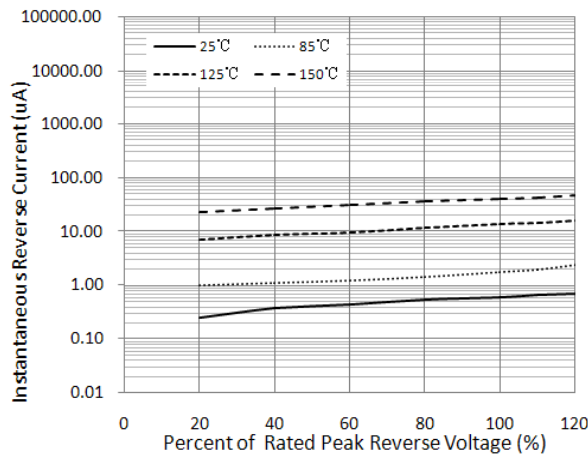


Figure 3. Typical Reverse Characteristics

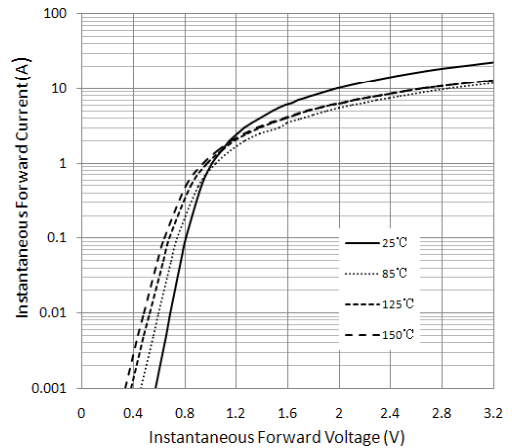


Figure 4. Typical Instantaneous Forward Characteristics

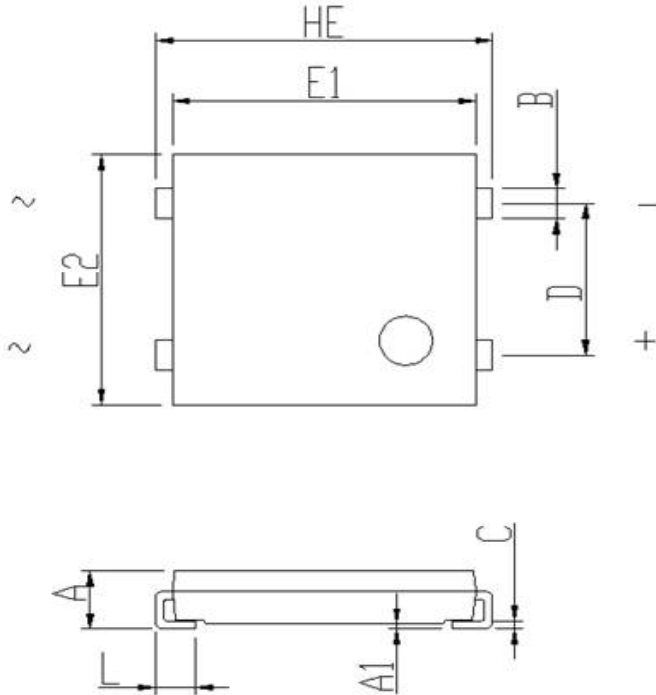


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## Package Outline Dimensions

in inches (millimeters)



Package	DFL	
	MIN	MAX
Unit: mm		
A	1.7	2
A1	0.05	0.25
B	0.85	1.15
C	0.2	0.35
D	5.08 typ	
E1	8.95	9.25
E2	8.13	8.51
L	1	1.5
HE	9.8	10.3



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