SENSITRON
SEMICONDUCTOR

DF005-G – DF10-G

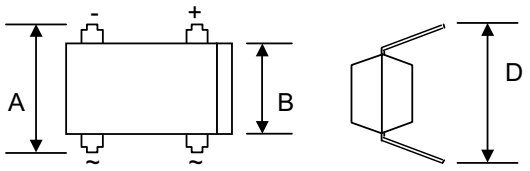
1.0A GLASS PASSIVATED BRIDGE RECTIFIER

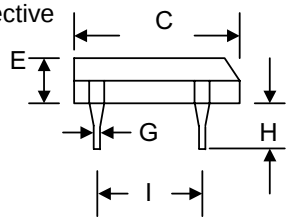
Data Sheet 1387, Rev.A

Green Products

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive





*Low profile models (E = 2.20~2.50mm) are available.
Please consult factory.

DIL				
Dim	Min	Max	Min	Max
A	7.40	7.90	0.291	0.311
B	6.20	6.50	0.244	0.256
C	8.13	8.51	0.320	0.335
D	7.60	8.90	0.299	0.350
E*	3.20	3.40	0.126	0.134
G	0.41	0.51	0.016	0.020
H	3.90	4.20	0.154	0.165
I	5.0	5.20	0.197	0.205
	In mm		In inch	

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.38 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

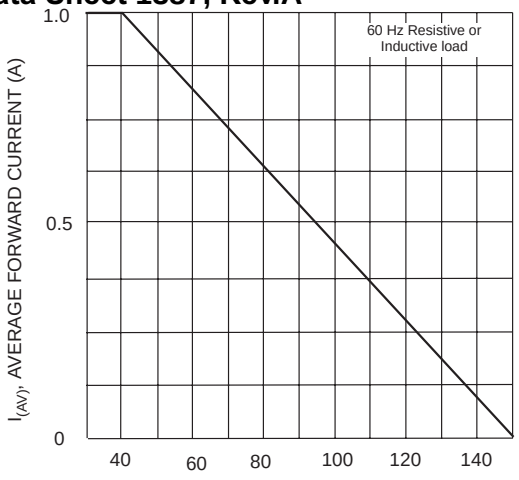
Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

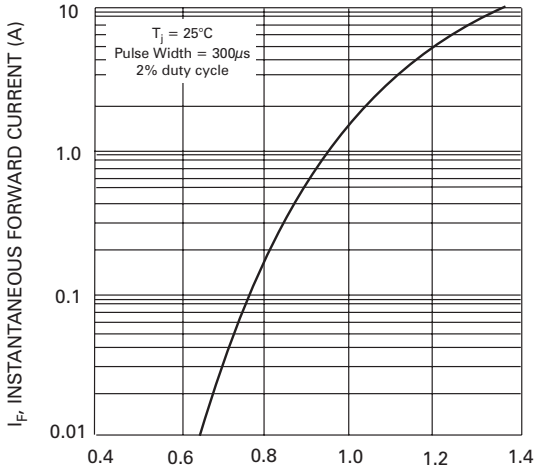
Characteristic	Symbol	DF005-G	DF01-G	DF02-G	DF04-G	DF06-G	DF08-G	DF10-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @T_A = 40°C	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage per element @I_F = 1.0A	V_{FM}	1.1							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}	10 500							μA
Typical Junction Capacitance per element (Note 1)	C_j	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150							°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance junction to ambient mounted on PC board with 13mm^2 copper pad.

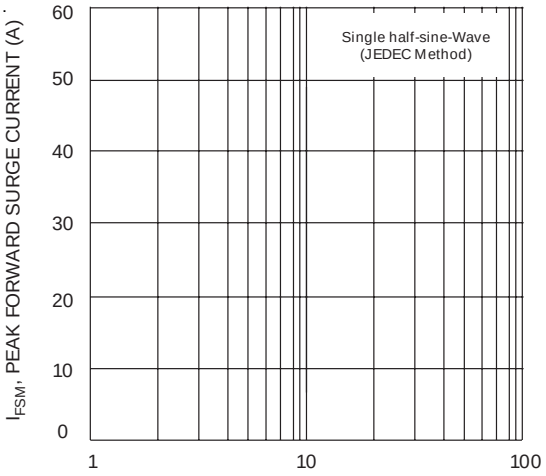
• 221 West Industry Court 🖹 Deer Park, NY 11729-4681 🖹 (631) 586-7600 FAX (631) 242-9798 •
• World Wide Web Site - http://www.sensitron.com • E-Mail Address - sales@sensitron.com •



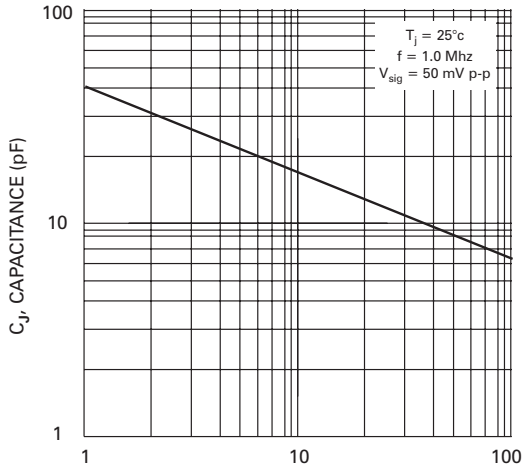
T_A, AMBIENT TEMPERATURE (°C)
Fig. 1 Output Current Derating Curve



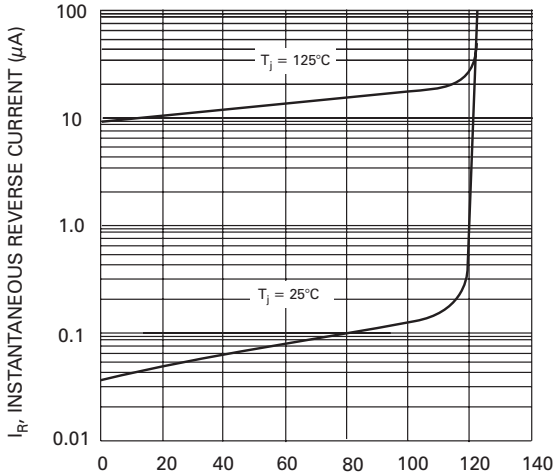
V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typ Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Forward Surge Current



V_R, REVERSE VOLTAGE (V)
Fig. 4 Typ Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typ Reverse Characteristics (per element)

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