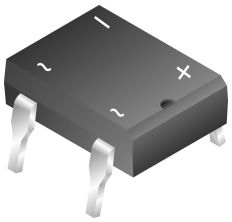
FAIRCHILD SEMICONDUCTOR TM

DF005M - DF10M

Features

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Low leakage.
- UL certified, UL #E111753.



DIP

1.5 Ampere Bridge Rectifiers

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
$I_{F(AV)}$	Average Rectified Current @ T_A = 40°C	1.5	A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	50	A
P_D	Total Device Dissipation Derate above 25°C	3.1 25	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	40	°C/W
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_J	Operating Junction Temperature	-55 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**Device mounted on PCB with 0.5 x 0.5" (13 x 13 mm).

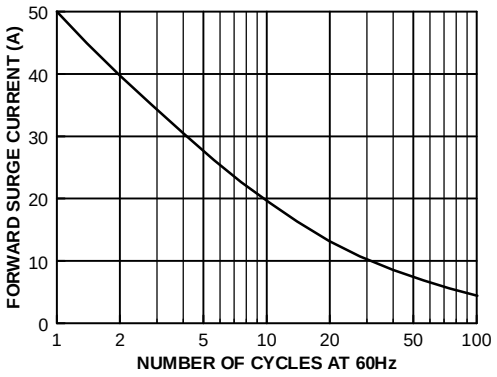
Electrical Characteristics

T_A = 25°C unless otherwise noted

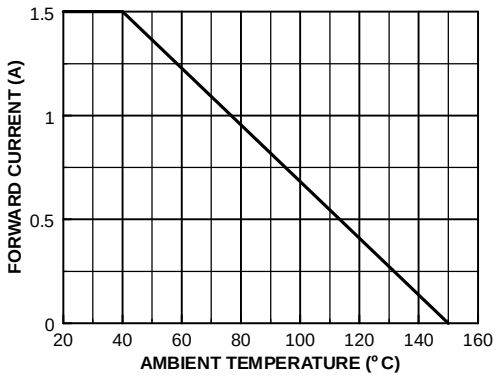
Symbol	Parameter	Device							Units
		005M	01M	02M	04M	06M	08M	10M	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
V_R	DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
I_{RM}	Maximum Instantaneous Reverse Leakage, total bridge @ rated V_R T_A = 25°C T_A = 125°C	5.0 500							µA µA
V_{FM}	Maximum Instantaneous Forward Voltage Drop, per bridge @ 1.0 A	1.1							V
	I^2t rating for fusing t < 8.35 ms	10							A^2s
C	Typical Junction Capacitance, per leg V_R = 4.0 V, f = 1.0 MHz	25							pF

Typical Characteristics

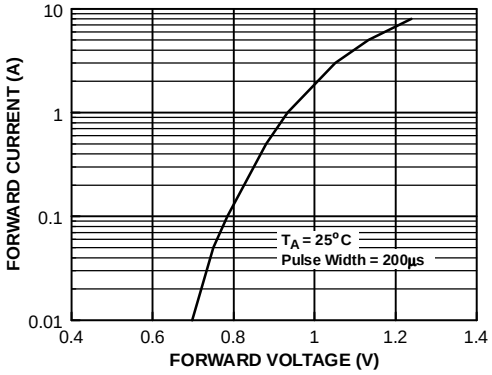
Non-Repetitive Surge Current



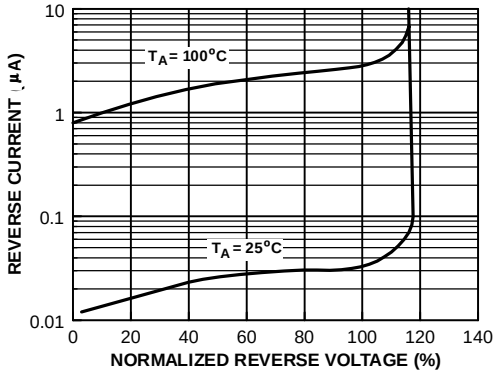
Output Rectified Current



Forward Characteristics



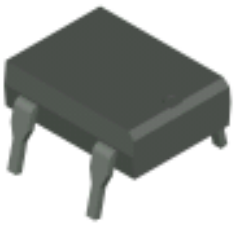
Reverse Characteristics

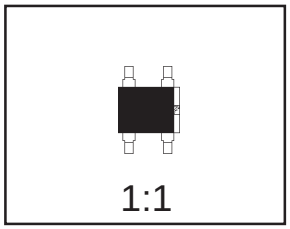


DIP Package Dimensions

FAIRCHILD SEMICONDUCTOR™

DIP (FS PKG Code R3)

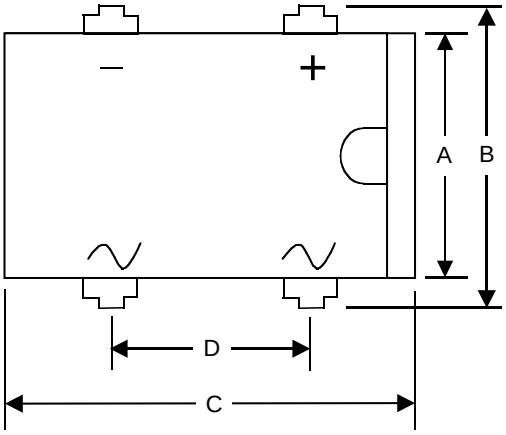




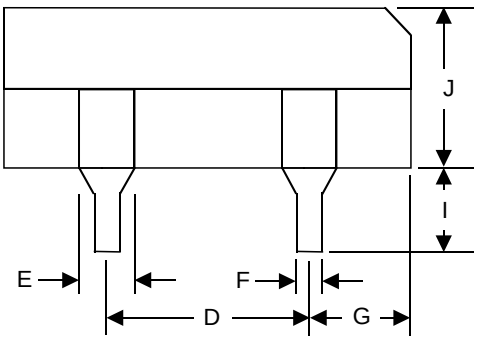
Scale 1:1 on letter size paper

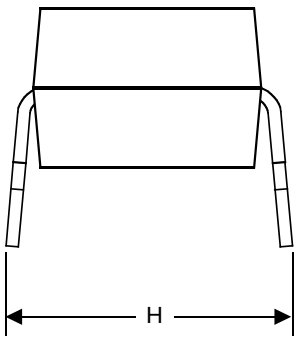
Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.4



DIM	MIN (in)	MAX (in)	MIN (mm)	MAX (mm)
A	.245	.255	6.223	6.477
B	.285	.315	7.239	8.001
C	.320	.335	8.128	8.509
D	.195	.205	4.953	5.207
E	.035	.045	0.889	1.143
F	.018	.022	0.457	0.559
G	.055	.075	1.397	1.905
H	.300	.350	7.620	8.890
I	.150	.185	3.810	4.699
J	.120	.130	3.048	3.302





LEAD SPREAD

July 1999, Rev. A

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