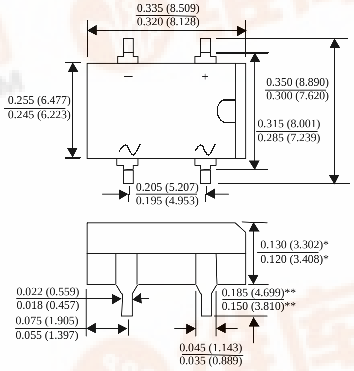
FAIRCHILD
SEMICONDUCTOR™

Discrete POWER & Signal Technologies

DF005M - DF10M



LOW PROFILE ALSO AVAILABLE

BODY - - 0.102 (2.591)* / 0.095 (2.413)*

LEAD - - 0.080 (2.032)** / 0.050 (1.270)**

DIP

Features

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Low leakage.

1.5 Ampere Bridge Rectifiers

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I_O	Average Rectified Current @ T_A = 40°C	1.5	A
$i_{f(surge)}$	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.

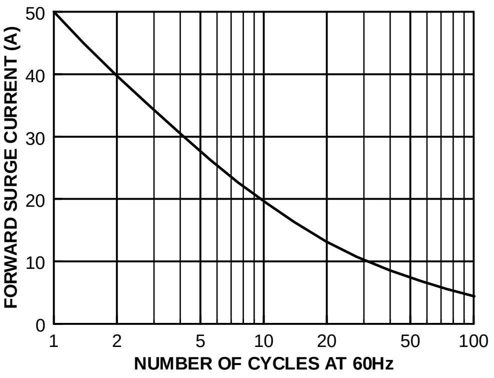
**Device mounted on PCB with 0.5 x 0.5" (13 x 13 mm).

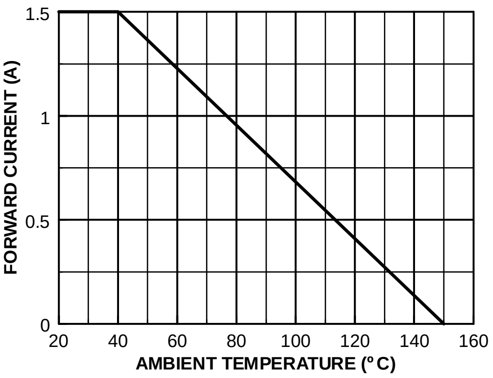
Electrical Characteristics

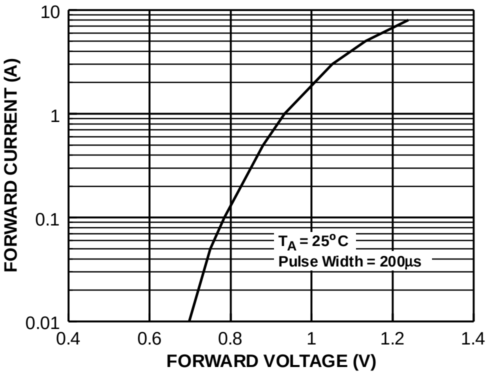
T_A = 25°C unless otherwise noted

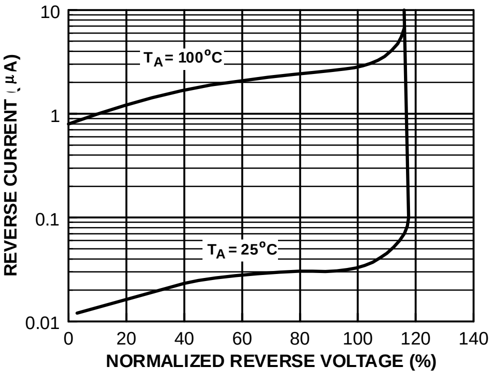
Parameter	Device							Units
	005M	01M	02M	04M	06M	08M	10M	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage, total bridge @ rated V_R T_A = 25°C T_A = 125°C	5.0 500							µA µA
Maximum Forward Voltage Drop, per bridge @ 1.0 A	1.1							V
I^2t rating for fusing t < 8.35 ms	10							A^2Sec
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