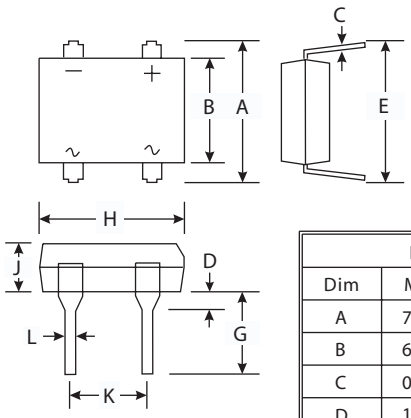
DEC

DF005 THRU DF10

CURRENT 1.0 Ampere
VOLTAGE 50 to 1000 Volts

Features

- Glass Passivated Die Construction
- Diffused Junction
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Designed for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0



DF		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.22	0.30
D	1.27	2.03
E	7.60	8.90
G	3.81	4.69
H	8.13	8.51
J	2.40	2.60
K	5.00	5.20
L	0.46	0.58
All Dimensions in mm		

Mechanical Data

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

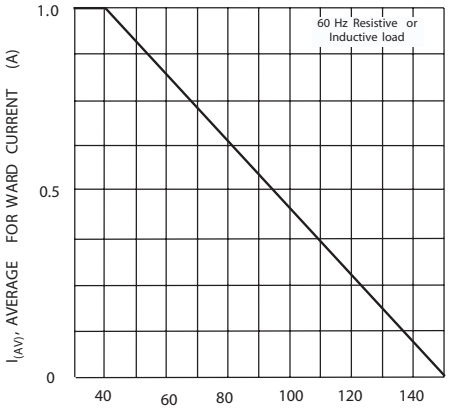
Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

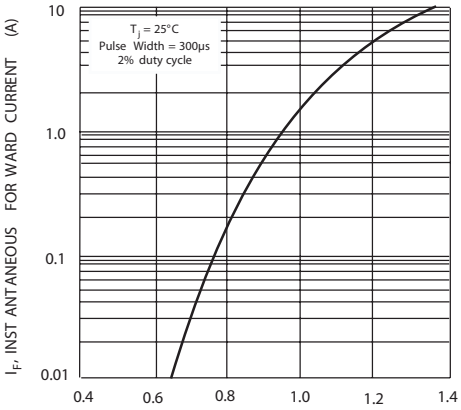
	Symbols	DF005	DF01	DF02	DF04	DF06	DF08	DF10	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RMM} V_{RWM} V_R	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Average Rectified Output Current @ T_A=40℃	Io	1.0							Amp
Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amps
Forward Voltage (per element) @ I_F=1.0 A	V_{FM}	1.1							Volts
Peak Reverse Current at Rated DC Blocking Voltage (per element) @ T_A=25℃	I_{RM}	10							μ A
Peak Reverse Current at Rated DC Blocking Voltage (per element) @ T_A=125℃	I_{RM}	500							μ A
I^2t Rating for Fusing (t<8.3ms)	I^2t	10.4							A^2s
Typical Junction Capacitance per element (Note 1)	C_j	25							pF
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R\theta_{JA}$	40							℃/W
Operating and Storage Temperature Range	T_j T_{STG}	-65 to +150							℃

Notes:
(1) Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
(2) Thermal Resistance, junction to ambient, measured on PC board with 5.0^2mm (0.03mm thick) land areas.

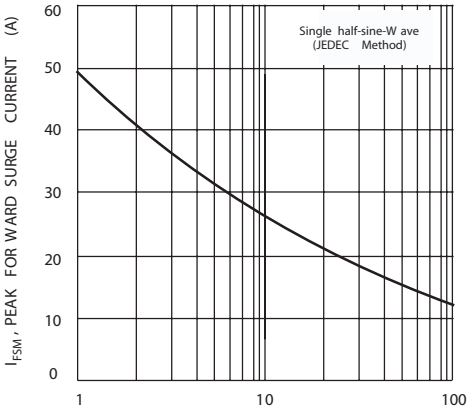
RATING AND CHARACTERISTIC CURVES DF005 THRU DF10



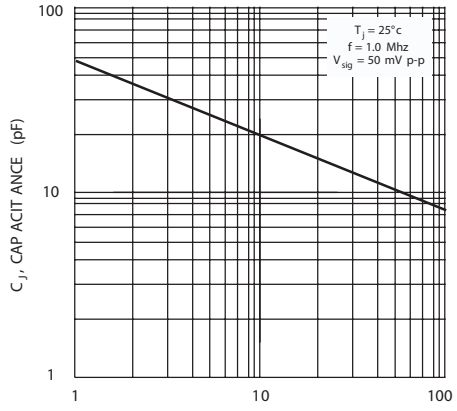
T_A, AMBIENT TEMPERA TURE (°C)
Fig. 1 Output Current Derating Curve



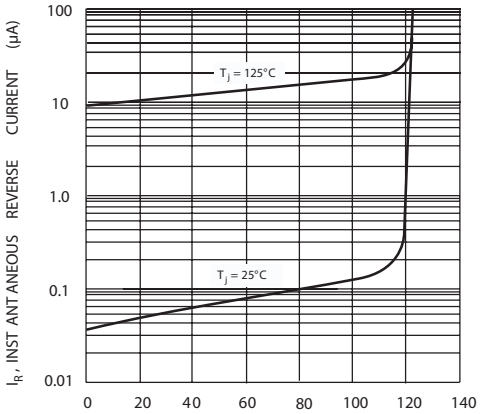
V_F, INST ANTANEOUS FOR WARD VOLTAGE (V)
Fig. 2 Typ Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive PeakForward 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)