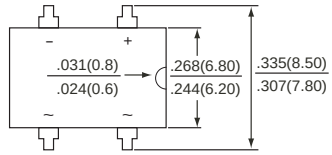
DF005 THRU DF10

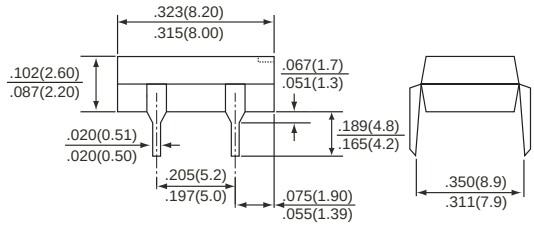
SINTERED GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts *Forward Current - 1.0 Ampere*

PATENTED

DFM





*Dimensions in inches and (millimeters)

SuperBridge with GPRC inside

SUPEREX II™

FEATURES

* Internal Constructure with GPRC (Glass Passivated Rectifier Chip) inside
* Diffused Junction
* Low Forward Voltage Drop, High Current Capability
* High Surge Current Capability
* Designed for Surface Mount Application
* Plastic Material-UL Recognition Flammability Classification 94V-0

MECHANICAL DATA

Case : Molded Plastic
Terminals : Plated Leads, solderable per MIL-STD-750, Method 2026
Polarity : As marked on Case
Weight : 0.38 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***DF005***	***DF01***	***DF02***	***DF04***	***DF06***	***DF08***	***DF10***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @ T_A=40°C	I (AV)	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							Amps
Maximum instantaneous forward voltage @ I_F=1.0 A	V_F	1.1							Volts
Maximum DC reverse current @T_C=25°C at rated DC blocking voltage @T_C=125°C	I_R	5 500							uA
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							K / W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +175							°C

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
(2) Thermal resistance from junction to ambient mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads.

RATINGS AND CHARACTERISTIC CURVES DF005 THRU DF10

FIG.1 - FORWARD CURRENT DERATING CURVE

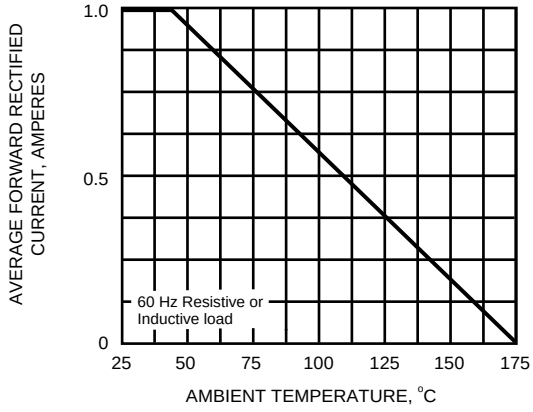


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

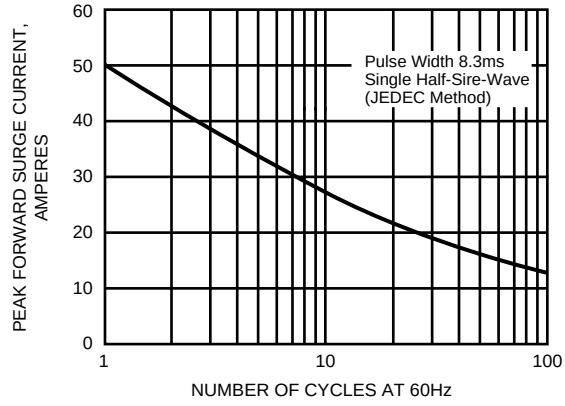


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

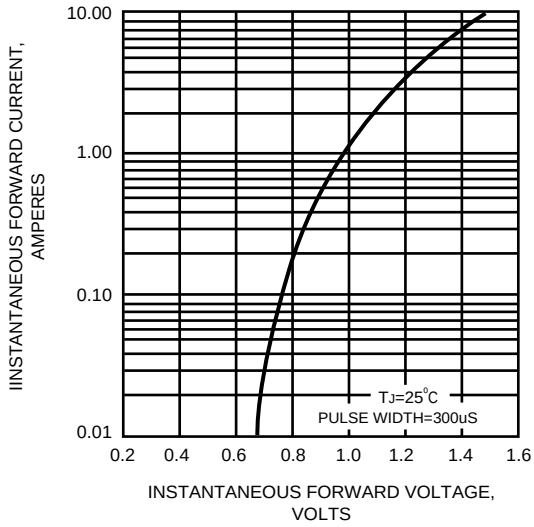


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

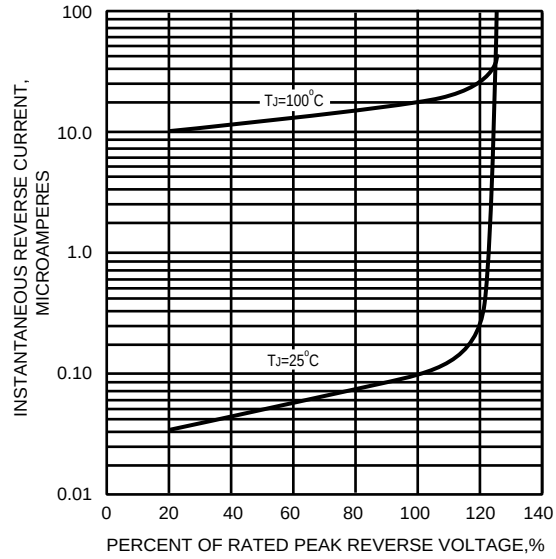


FIG.5 - TYPICAL JUNCTION CAPACITANCE