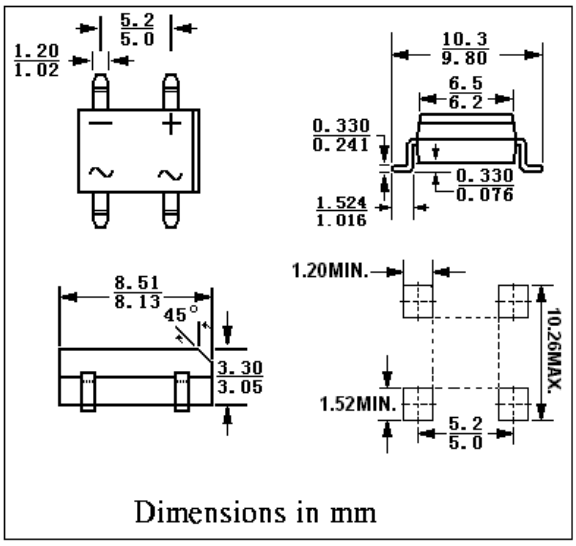
DF005SA THRU DF10SA

MINIATURE GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIERS
Reverse Voltage – 50 to 1000 Volts
Forward Current – 1.0 Ampere



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Glass passivated chip junctions.
- High surge overload rating of 30 Amperes peak.
- Ideal for printed circuit boards.
- High temperature soldering guaranteed: 250oC/10 seconds at 5 1bs. (2.3Kg) tension.

Mechanical Data

- Case: Molded plastic body over passivated junctions.
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026.
- Polarity: Polarity symbols marked on body.
- Mounting Position: Any.

Absolute Maximum Ratings and Characteristics

Ratings at 25^{0}C ambient temperature unless otherwise noted

	Symbols	DF 005SA	DF 01SA	DF 02SA	DF 04SA	DF 06SA	DF 08SA	DF 10SA	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward output rectified current at T_A = 40^{O}C (2)	$I_{F(AV)}$	1							A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T_J=150^{o}C	I_{FSM}	30							A
Maximum instantaneous forward voltage drop per leg at 1A	V_F	1.1							V
Maximum DC reverse current T_A = 25 ^{O}C	I_R	5							μA
at rated DC blocking voltage per leg T_A = 125^{O}C		500							μA
Rating for fusing (t<8.3ms)	I^2t	4.5							A^2sec
Typical junction capacitance per leg (1)	C_J	25							pF
Typical thermal resistance per leg (2)	$R_{\theta JA}$	40							^{O}C/W
	$R_{\theta JL}$	15							
Operating junction and storage temperature range	T_J ,T_S	-50 to +150							^{O}C

Notes: (1). Measured at 1MH$_Z$ and applied reverse voltage of 4volts

(2). Units mounted on P.C.B with 0.51X 0.51" (13 X13mm) copper pads

DF005SA THRU DF10SA

FIG.1-DERATING CURVE OUTPUT RECTIFIED CURRENT

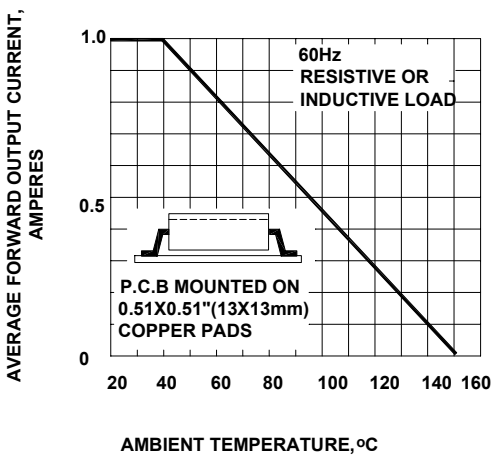


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

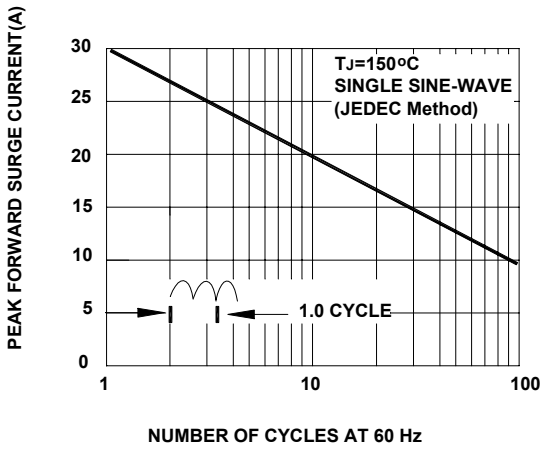


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG

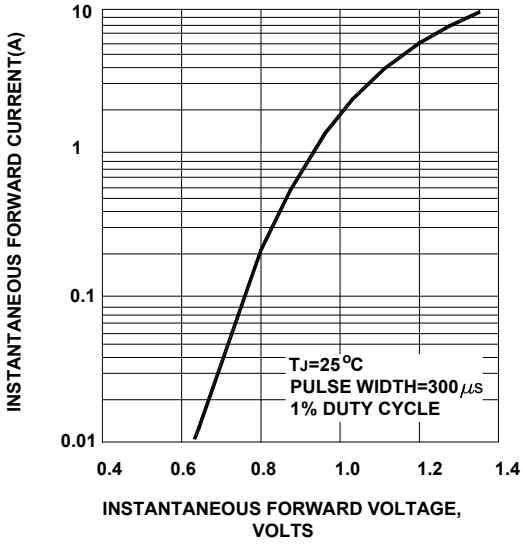


FIG.4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

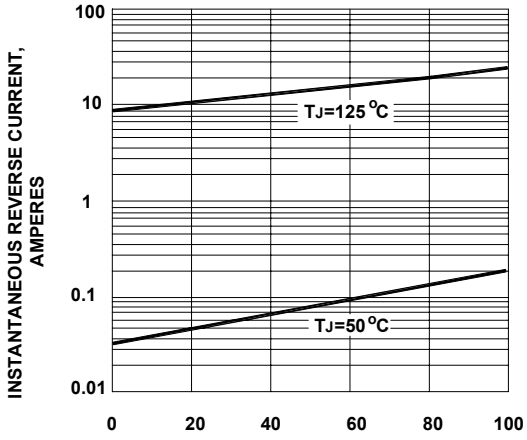


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

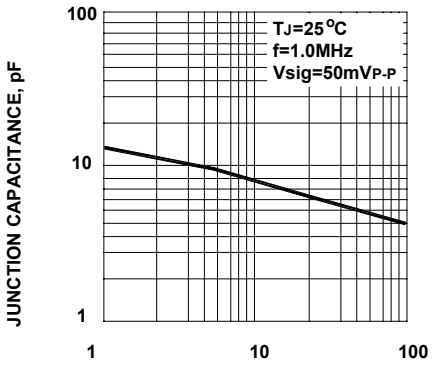


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE