



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

DF15005S THRU DF1510S

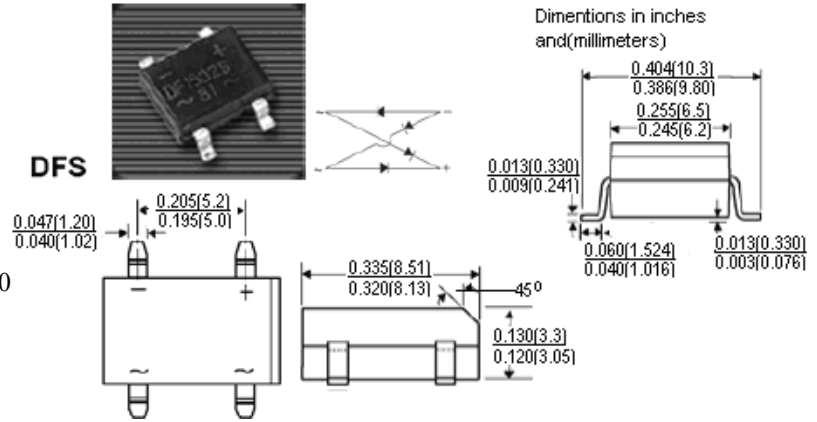
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.5 Ampere

FEATURES

- High forward surge current capability
- Glass passivated chip junction
- High case dielectric strength
- High temperature soldering guaranteed:
260°C / 10 seconds

MECHANICAL DATA

- Case: Transfer molded plastic
- Terminal: Lead solderable per MIL-STD-750 method 2026
- Polarity: Polarity symbols marked on case
- Mounting: any
- Weight: 0.04 ounce, 1.0 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	DF	DF	DF	DF	DF	DF	DF	UNIT
		15005S	1501S	1502S	1504S	1506S	1508S	1510S	
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, 0.06" (1.5mm) lead length at $T_A = 40^\circ\text{C}$ (Note 1)	$I_{(AV)}$	1.5							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amps
Rating for Fusing ($t < 8.3\text{mS}$)	I^2t	10							A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element 1.5A	V_F	1.1							Volts
Maximum DC Reverse Current at Rated $T_A = 25^\circ\text{C}$	I_R	10							μA
DC Blocking Voltage per element $T_A = 125^\circ\text{C}$		0.5							mA
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	25							pF
Typical Thermal Resistance (Note 1)	$R_{\theta Ja}$	40							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	(-55 to +150)							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-55 to +150)							$^\circ\text{C}$

Notes:

1. Unit mounted on PCB with 0.51" X 0.51" (13mm X 13mm) copper pads



RATINGS AND CHARACTERISTIC CURVES DF15005S THRU DF1510S

FIG.1—DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

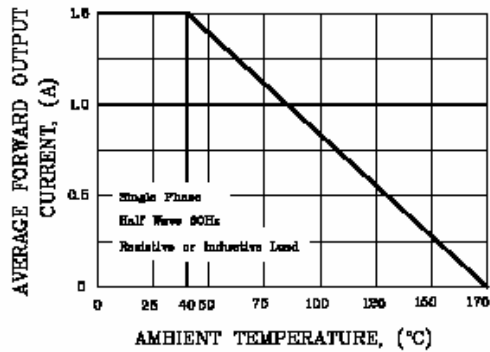


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

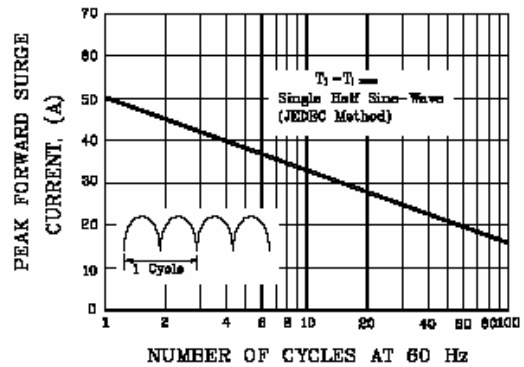


FIG.3—TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

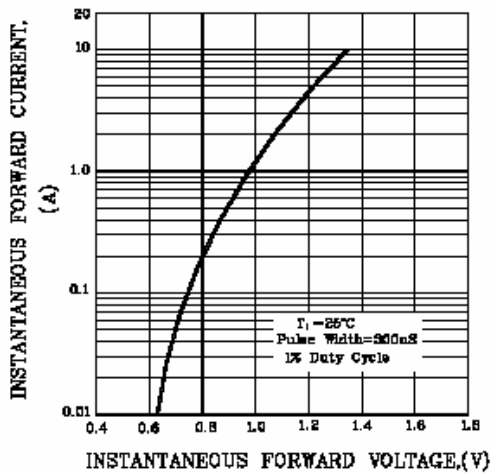


FIG.4—TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

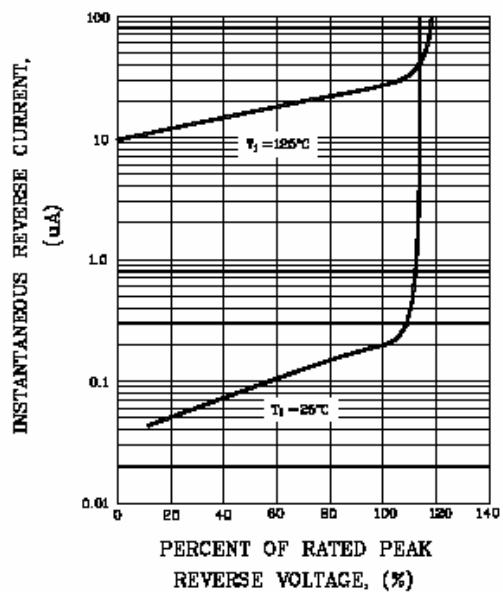


FIG.5—TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

