Lead Free
RoHS Compliant

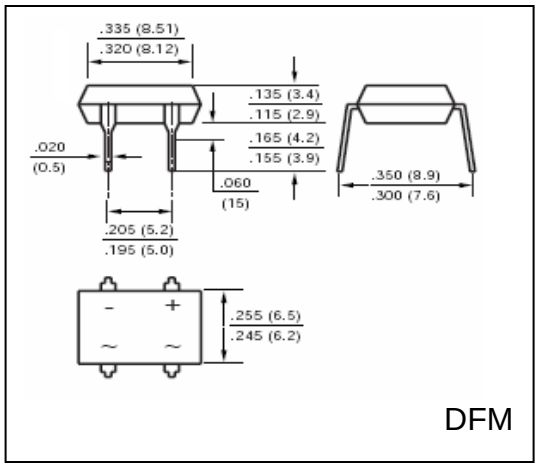
SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

DF15005M THRU DF1510M

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^{O}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^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	DF 15005M	DF 1501M	DF 1502M	DF 1504M	DF 1506M	DF 1508M	DF 1510M	UNIT
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^{O}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<8.3mS)	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 ^{O}C	I_R	10							µA
DC Blocking Voltage per element T_A = 125 ^{O}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)	$R_{\theta JC}$	40							^{O}C/W
Operating Junction Temperature Range	T_J	(-55 to +150)							^{O}C
Storage Temperature Range	T_{STG}	(-55 to +150)							^{O}C

Notes:

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

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RATINGS AND CHARACTERISTIC CURVES DF15005M THRU DF1510M

FIG.1–DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

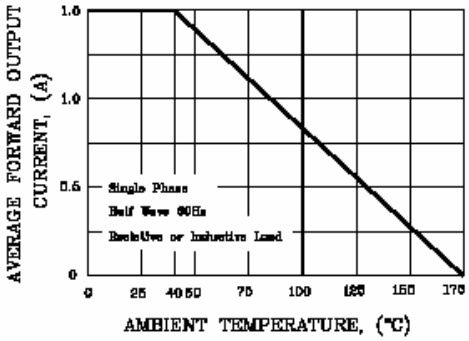

FIG.2–MAXIMUM NON–REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

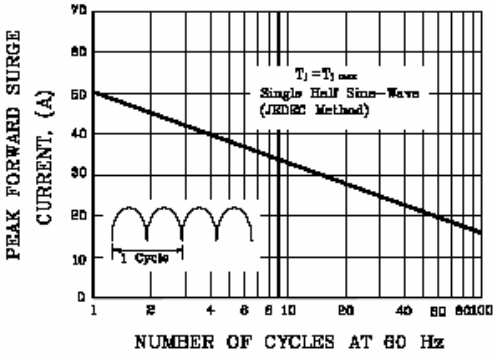

FIG.3–TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

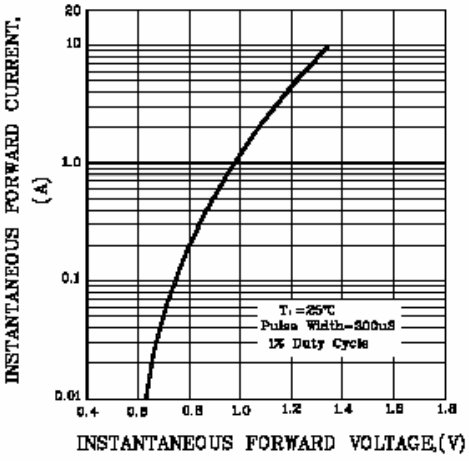

FIG.4–TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

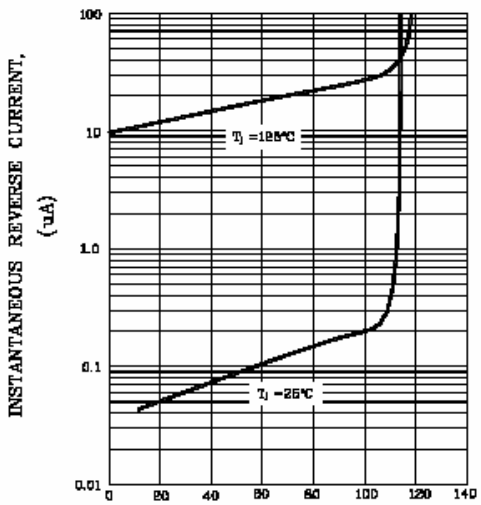

FIG.5–TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT