



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER RS401 THRU RS407

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 4.0 Amperes

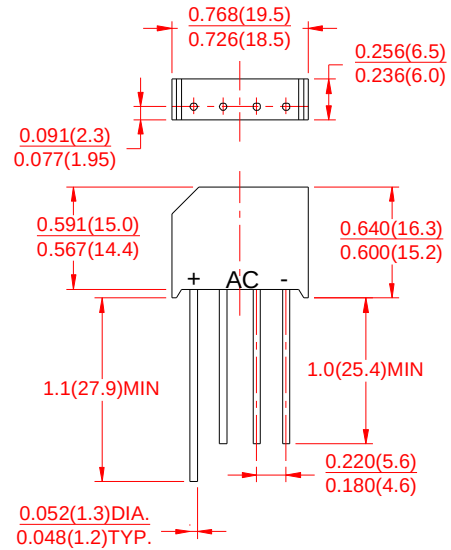
FEATURES

- Low cost
- This series is UL recognized under component index , file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:
260°C/10 second, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Transfer molded plastic
- Terminal: Lead solderable per MIL-STD-202E method 208C
- Mounting: Any
- Weight: 0.22 ounce, 6.21 gram

RS-4



Dimensions in inches and (millimeters)

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	RS401	RS402	RS403	RS404	RS405	RS406	RS407	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 Output Current, at	$T_C=50^\circ\text{C}$ (Note 2) $T_A=50^\circ\text{C}$ (Note 3)	$I_{(AV)}$						Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}						Amps	
Rating for Fusing ($t < 8.3\text{ms}$)		I^2t						A^2s	
Maximum Instantaneous Forward Voltage Drop per bridge element at 4.0A		V_F						Volts	
Maximum DC Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R						μAmps mAmps	
Typical Junction Capacitance (Note 1)		C_J						pF	
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$						$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150						$^\circ\text{C}$	

NOTES:

- Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- Unit mounted on 3.0"x3.0"x0.11" thick (7.5x7.5x0.3 cm) Al. plate.
- P.C. Board mount with 0.5"x0.5" (12x12cm) copper pads 0.375" (9.5mm) lead length



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER
RS401 THRU RS407

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 4.0 Amperes

RATINGS AND CHARACTERISTIC CURVES RS401 THRU RS407

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

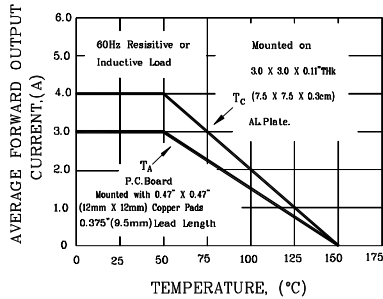


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

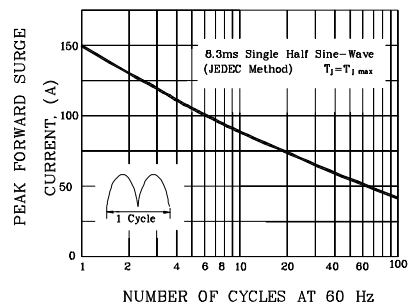


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

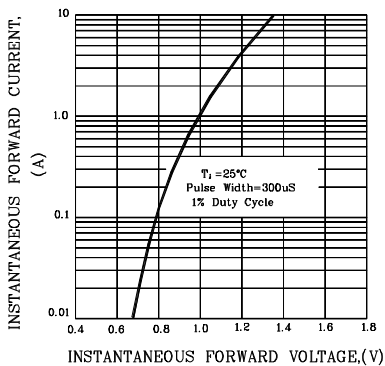


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

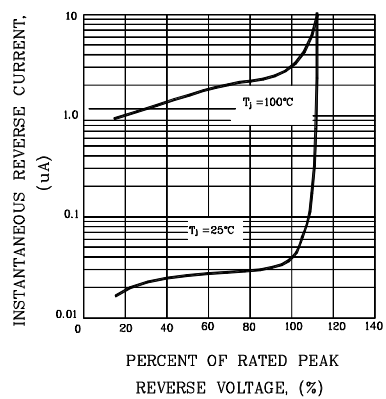


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

