

# DC COMPONENTS CO., LTD.

### RECTIFIER SPECIALISTS

RS101G THRU RS107G

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 1.0 Amperes

#### **FEATURES**

- \* Low cost
- \* Low leakage
- \* Low forward voltage
- \* Glass passivated junction

#### MECHANICAL DATA

\* Case: Molded plastic

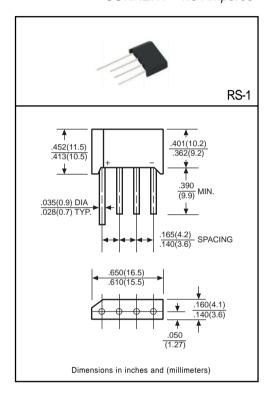
\* Epoxy: UL 94V-0 rate flame retardant

\* Lead: MIL-STD-202E, Method 208 guaranteed \* Polarity: Symbols molded or marked on body

\* Mounting position: Any \* Weight: 1.26 grams

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25  $^{\circ}$ C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.



		SYMBOL	RS101G	RS102G	RS103G	RS104G	RS105G	RS106G	RS107G	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at Tc = 50°C		lo	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	30							Amps
Maximum Forward Voltage Drop per element at 1.0A DC		VF		1.0						Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@TA= 25 °C	l <sub>R</sub>	10							uAmps
	@Ta = 100°C	l ik	500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		l <sup>2</sup> t	10							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)		Cı	15							pF
Typical Thermal Resistance (Note 2)		RθJA		40						°C/W
Operating Temperature Range		TJ		-55 to + 150						٥C
Storage Temperature Range		Тѕтс		-55 to + 150						٥C

NOTES: 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

2.Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.47 x 0.47" (12x12mm) copper pads.

## **RATING AND CHARACTERISTIC CURVES (RS101G THRU RS107G)**

FIG. 1 - MAXIMUM NON-REPETTIVE FORWARD SURGE CURRENT PEAK FORWARD SURGE CURRENT, (A) 30 8.3ms Single Half Sine-Wave (JEDEC Method) 20 10 0 8 10 20 40 60 100 1 6 NUMBER OF CYCLES AT 60Hz

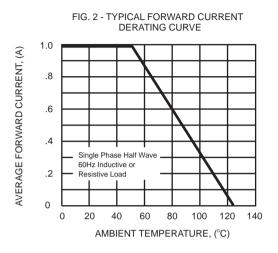


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD **CHARACTERISTICS** 20 10 INSTANTANEOUS FORWARD CURRENT, (A) 1.0 T<sub>J</sub> = 25°C Pulse Width = 300us .1 1% Duty Cycle .01 .6 .4 .8 1.0 1.2 INSTANTANEOUS FORWARD VOLTAGE, (V)

