



# THE DATASHEET OF RS103



**SINGLE-PHASE GLASS PASSIVATED  
 SILICON BRIDGE RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere**

**FEATURES**

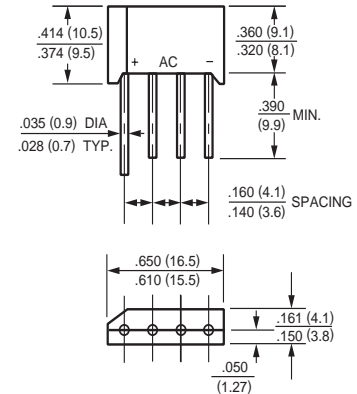
- \* Low cost
- \* Low leakage
- \* Low forward voltage
- \* Mounting position: Any
- \* Weight: 1.26 grams

**MECHANICAL DATA**

- \* UL listed the recognized component directory, file #E94233
- \* Epoxy: Device has UL flammability classification 94V-O



**RS-1**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RS101	RS102	RS103	RS104	RS105	RS106	RS107	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 TA = 50°C	Io	1.0							Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30							Amps
Typical Thermal Resistance from junction to ambient	RθJA	50							°C/W
Typical Thermal Resistance from junction to case	RθJC	15							
Operating Temperature Range	TJ	-55 to + 150							°C
Storage Temperature Range	TSTG	-55 to + 150							°C

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RS101	RS102	RS103	RS104	RS105	RS106	RS107	UNITS
Maximum Forward Voltage Drop per Bridge Element at 1.0A DC	VF	1.0							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	IR	@TA = 25°C							uAmps
		@TA = 100°C							mAmps

Note: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

# RATING AND CHARACTERISTIC CURVES ( RS101 THRU RS107 )

FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

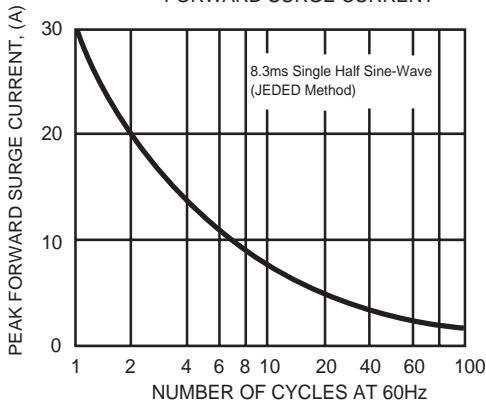


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

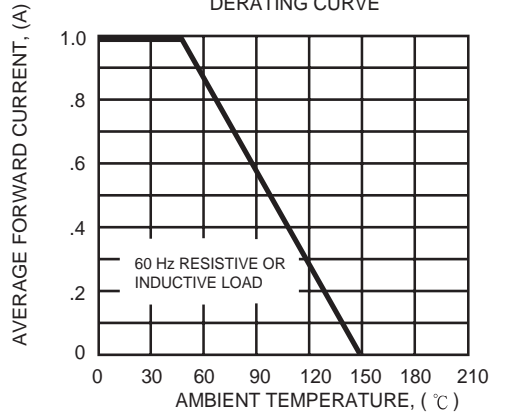


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

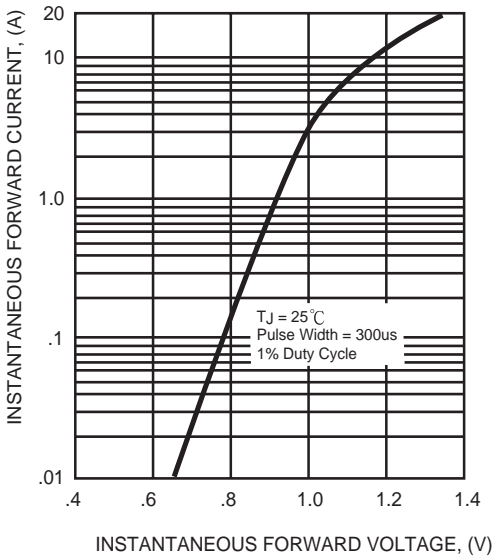
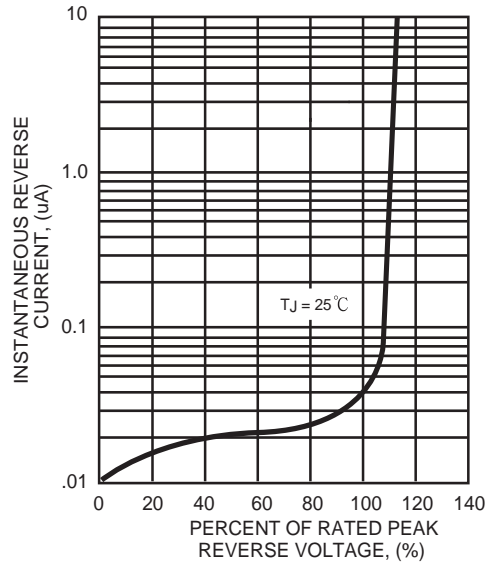




FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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