



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

S03AFL  
THRU  
S03MFL

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT GLASS PASSIVATED RECTIFIER**

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 0.3 Ampere

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Low profile space
- \* Low forward voltage drop
- \* High forward surge capability
- \* Glass passivated junction

**MECHANICAL DATA**

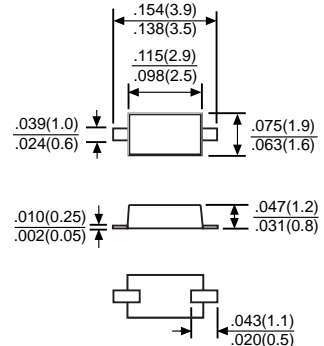
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.017 gram

**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%.



SOD-123FL



Dimensions in inches and (millimeters)

	SYMBOL	S03AFL	S03BFL	S03DFL	S03GFL	S03JFL	S03KFL	S03MFL	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	0.3							Amps
Peak Forward Surge Current I <sub>FSM</sub> (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	10							Amps
Maximum Forward Voltage at 0.3A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = 25°C	5.0							uAmps
	@ T <sub>A</sub> = 125°C	50							
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	220							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

NOTES :1. Mounted on FR-4 P.C.B. with 0.9X1.5 mm copper pads areas.

# RATING AND CHARACTERISTIC CURVES (S03AFL THRU S03MFL)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

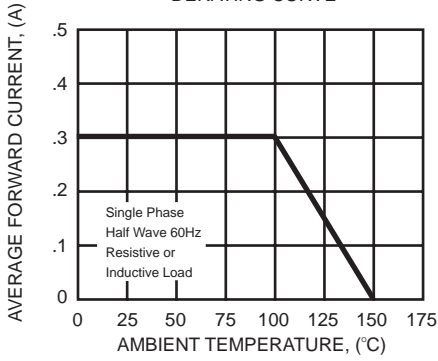


FIG. 2 - MAXIMUM NON-REPETITIVE FOREARD SURGE CURRENT

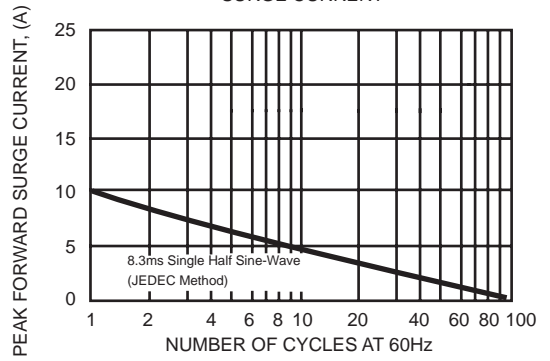


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

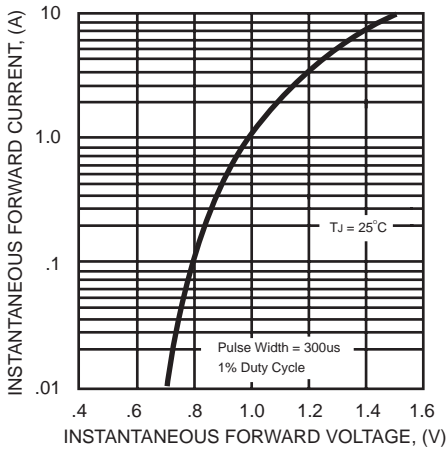


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

