



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

**S03AFL
THRU
S03MFL**

TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts **CURRENT - 0.3 Ampere**

FEATURES

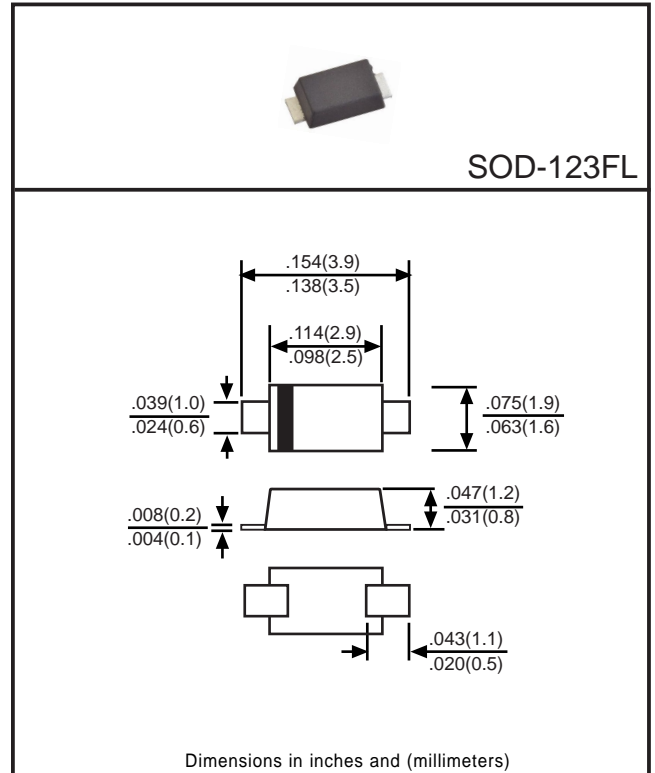
- * Ideal for surface mounted applications
- * Glass passivated junction
- * Low leakage current
- * Low forward voltage drop
- * High forward surge capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.017 gram approx.

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%.



	SYMBOL	S03AFL	S03BFL	S03DFL	S03GFL	S03JFL	S03KFL	S03MFL	UNITS
Maximum Recurrent 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 at $T_A = 55^\circ C$	I_O	0.3							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	15							Amps
Maximum Instantaneous Forward Voltage at 0.3A DC	V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A=25^\circ C$	5.0							μ Amps
	@ $T_A=100^\circ C$	50							
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	150							$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ C$

Note 1: Typical thermal resistance from junction to ambient.

RATING AND CHARACTERISTIC CURVES (S03AFL THRU S03MFL)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

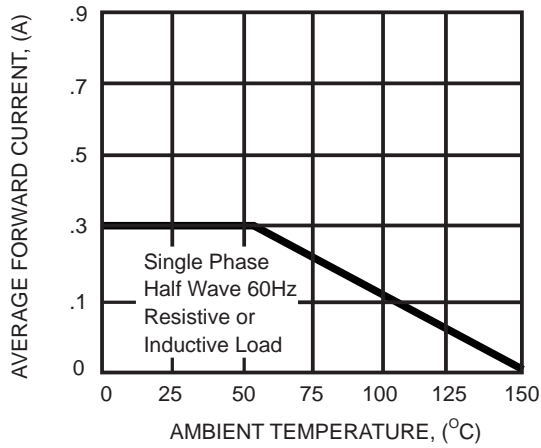


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

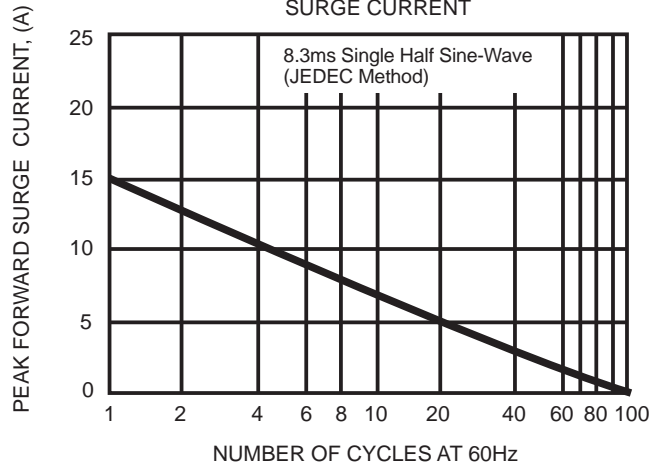


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

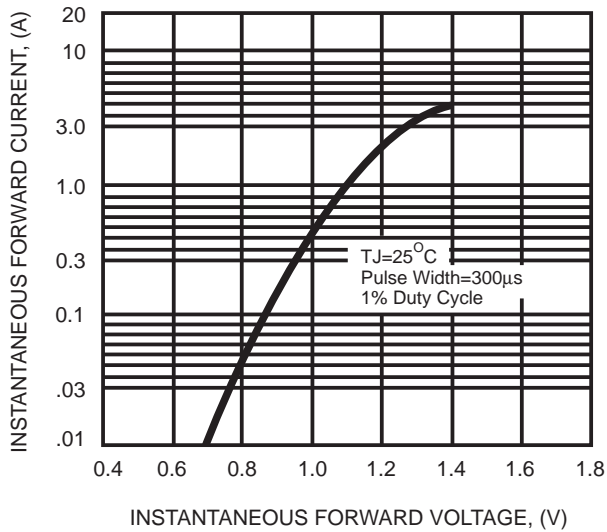
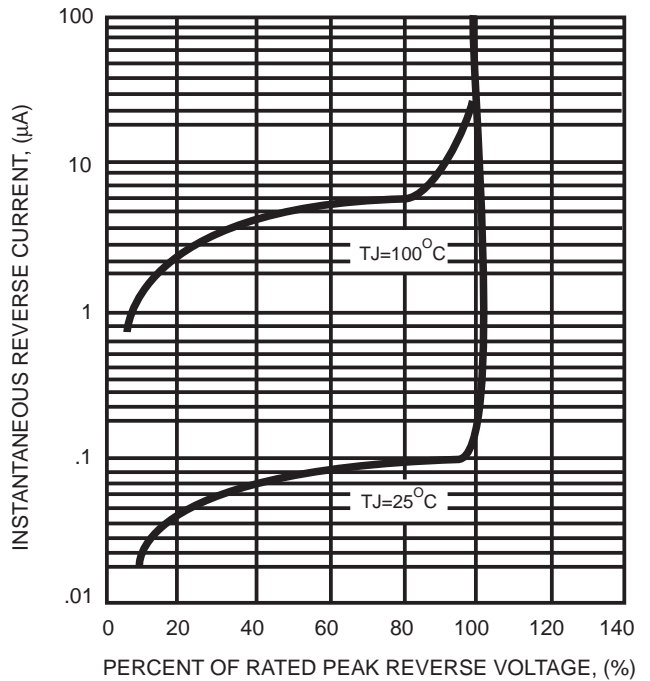


FIG. 4
TYPICAL REVERSE CHARACTERISTICS



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