



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

**S05AFL
THRU
S05MFL**

TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 0.5 Ampere

FEATURES

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

MECHANICAL DATA

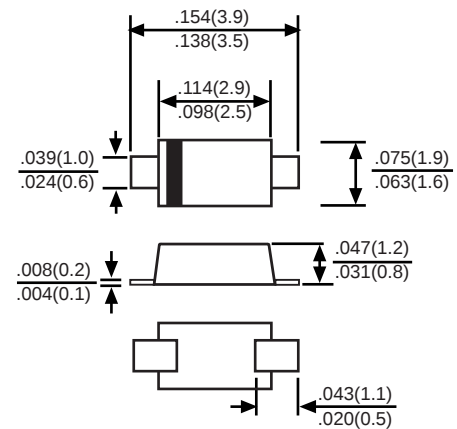
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.017 gram approx.

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%.



SOD-123FL



Dimensions in inches and (millimeters)

		SYMBOL	S05AFL	S05BFL	S05DFL	S05GFL	S05JFL	S05KFL	S05MFL	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 ^o C		I _O	0.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	20							Amps
Maximum Instantaneous Forward Voltage at 0.5A DC		V _F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T _A =25 ^o C	I _R	5.0							μAmps
	@ T _A =100 ^o C		50							
Typical Thermal Resistance (Note 1)		R _{θJA}	150							^o C/W
Operating and Storage Temperature Range		T _J ,T _{STG}	-55 to +150							^o C

Note 1: Typical thermal resistance from junction to ambient.

RATING AND CHARACTERISTIC CURVES (S05AFL THRU S05MFL)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

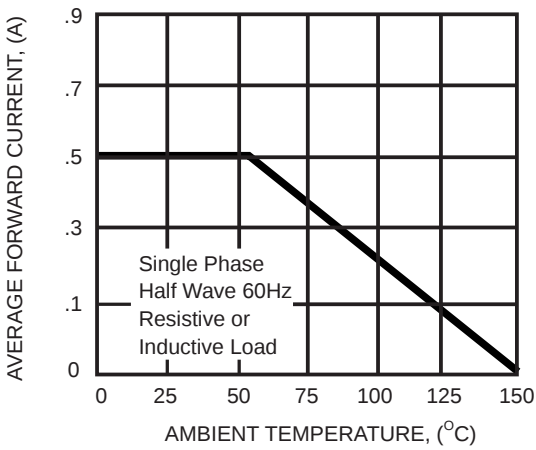


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

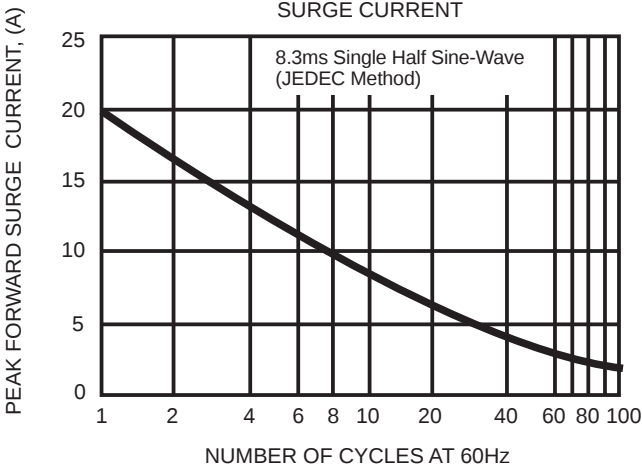


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

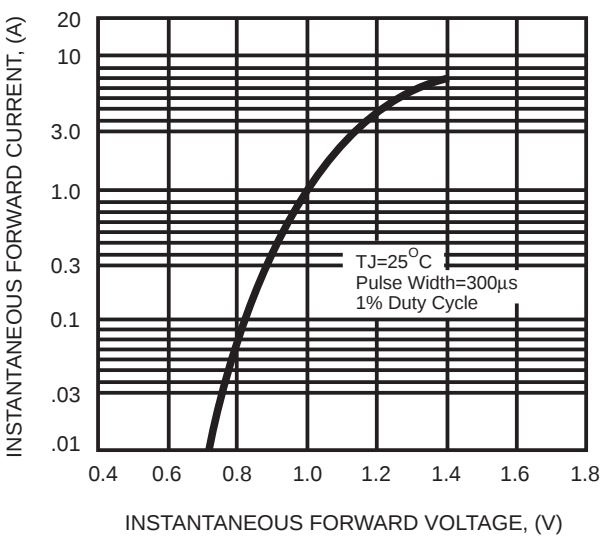
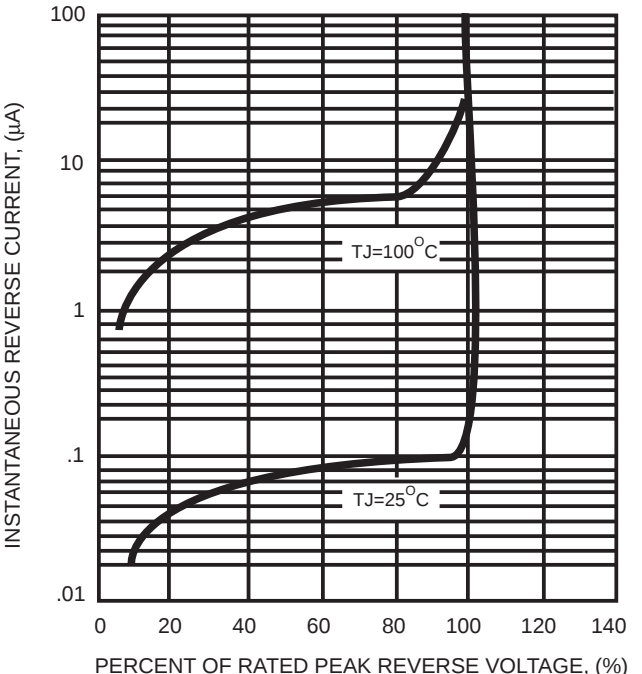


FIG. 4
TYPICAL REVERSE CHARACTERISTICS



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