

1.0Amp Fast Recovery Surface Mounted Rectifiers

RS1AFL~RS1MFL

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
250°C/10 seconds at terminals

Mechanical Data

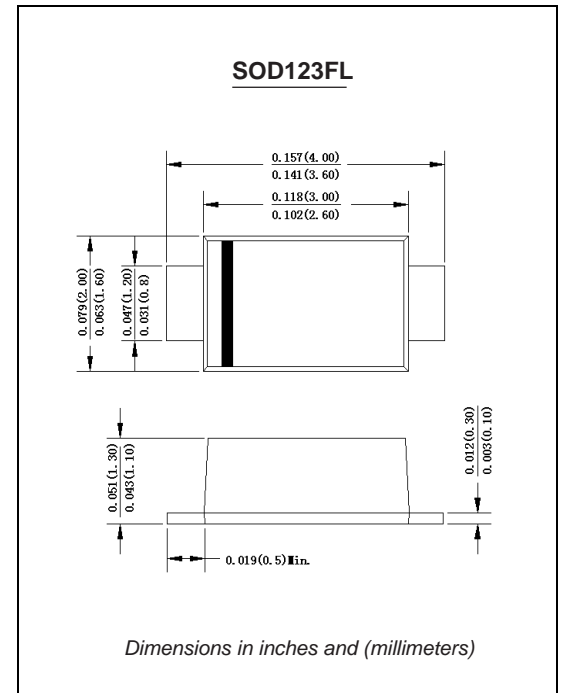
Case: JEDEC SOD-123FL molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbol marking on body

Mounting Position: Any

Weight : 0.0007 ounce, 0.02grams



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 current derate by 20%.

	SYMBOLS	RS1AFL	RS1BFL	RS1DFL	RS1GFL	RS1JFL	RS1KFL	RS1MFL	UNITS
	Marking Code	F1	F2	F3	F4	F5	F6	F7	
Maximum repetitive 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 _L =65°C	I _(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1A	V _F	1.3							Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0 500							u A
Maximum reverse recovery time(Note 1)	T _{rr}	150				250	500		ns
Typical junction capacitance (Note 2)	C _J	15.0							pF
Typical thermal resistance (Note 3)	R _{qJA}	180.0							°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-50 to +155							°C

Note: 1.Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3.Mounted on copper PC board with 5.0*5.0mm solder pad

Ratings And Characteristic Curves RS1AFL THRU RS1MFL

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

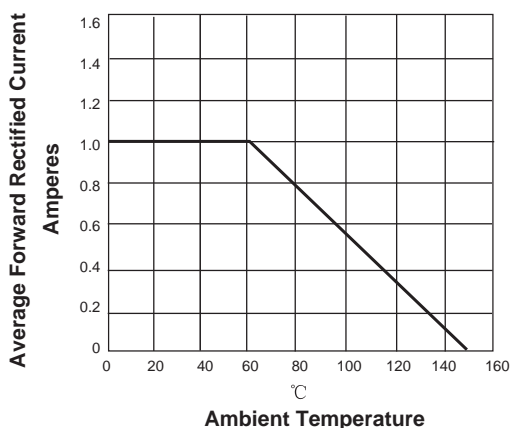


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

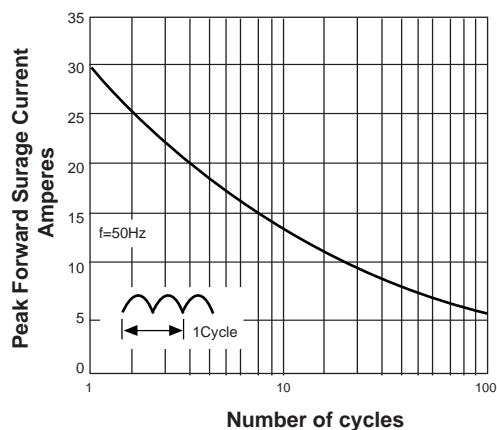


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

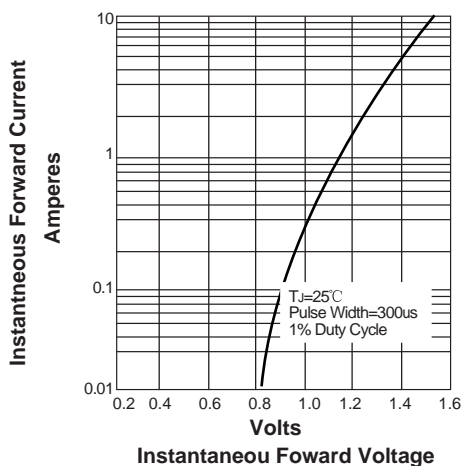


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

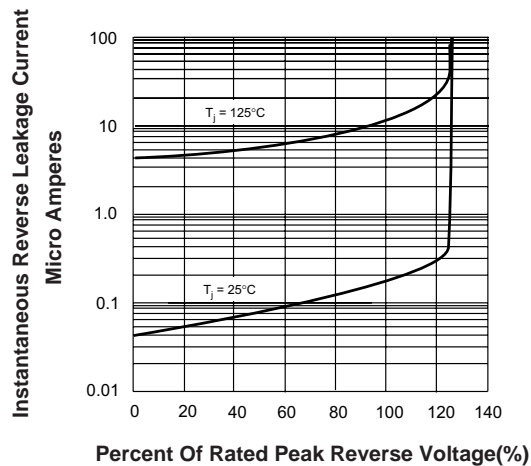


FIG. 5-TYPICAL JUNCTION CAPACITANCE

