RS1AFLH THRU RS1MFLH

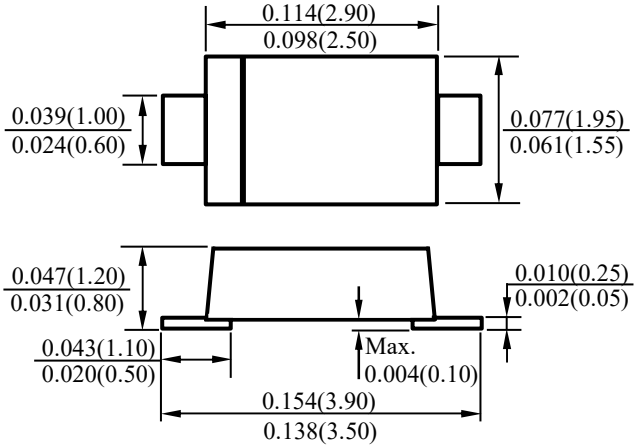
SURFACE MOUNT FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE: **50 to 1000 VOLTS**
FORWARD CURRENT: **1.0 AMPERE**

FEATURES

- Low Forward Voltage Drop
- Low Leakage Current
- Glass Passivated Die Construction
- Fast Recovery times for high efficiency
- Suffix "H" indicates Halogen-free parts, ex. RS1AFLH

SOD-123FL



Dimensions in inchs and (millimeters)

MECHANICAL DATA

Case : Molded plastic, SOD-123FL
Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
Polarity : Color band denotes cathode end

Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	*RS1AFLH*	*RS1BFLH*	*RS1DFLH*	*RS1GFLH*	*RS1JFLH*	*RS1KFLH*	*RS1MFLH*	Units
Marking Code		***F1A***	***F1B***	***F1D***	***F1G***	***F1J***	***F1K***	***F1M***	
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_L=100℃	$I_{(AV)}$	1.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25							**Amp**
Maximum Forward Voltage at I_F=1.0A	V_F	1.30							**Volts**
Maximum Reverse Current at T_J=25℃	I_R	5.0							**μAmp**
at Rated DC Blocking Voltage T_J=125℃		100							
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	30							℃/W
Maximum Reverse Recovery Time (Note 2)	t_{rr}	150				250	500		**ns**
Operating Junction Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	Tstg	-55 to +150							℃

NOTES:

1- Thermal resistance from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas
2- Reverse Recovery Test Conditions：I_F=0.5A，I_R=1A，I_{rr}=0.25A.

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RATINGS AND CHARACTERISTIC CURVES

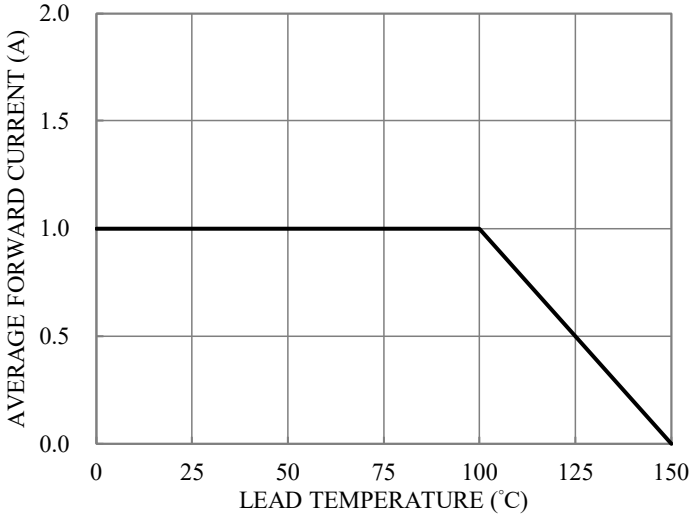

Fig.1-FORWARD CURRENT DERATING CURVE

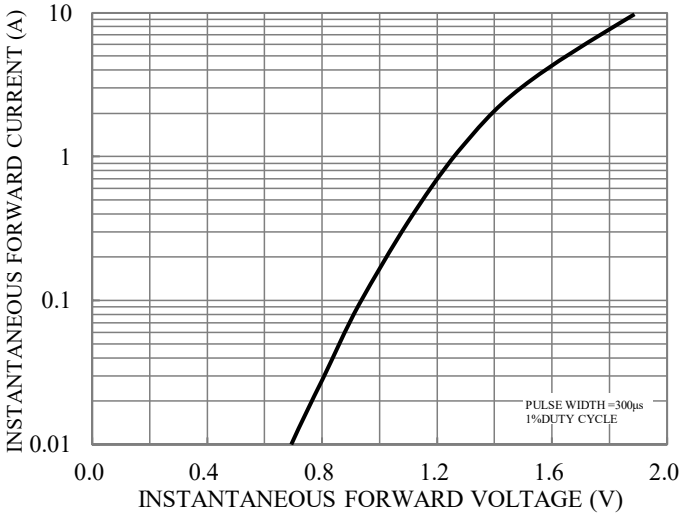

Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

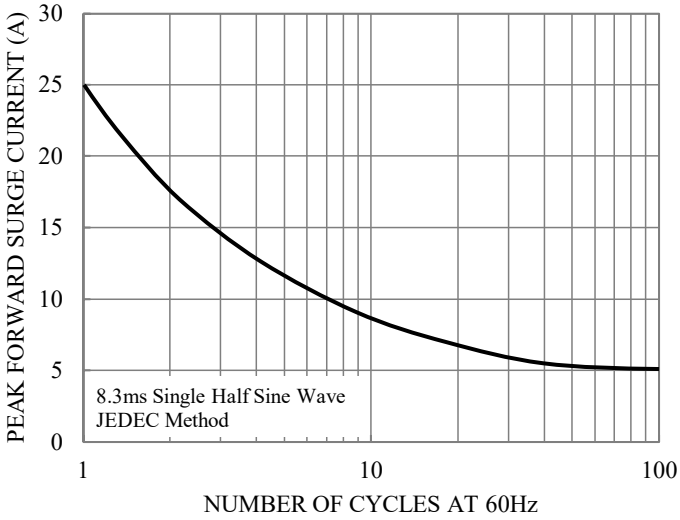

Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

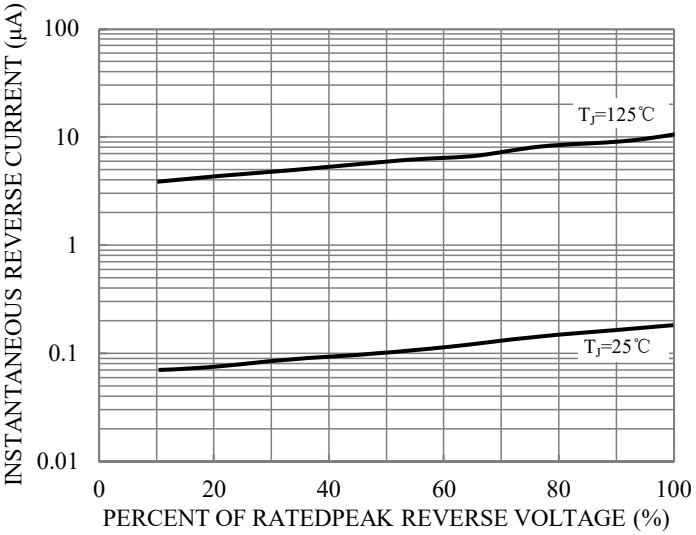

Fig.4-TYPICAL REVERSE CHARACTERISTICS