



SS12FLH THRU SS120FLH

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 20 to 200 VOLTS
FORWARD CURRENT: 1.0 AMPERE

FEATURES

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- Suffix "H" indicates Halogen-free parts, ex. SS12FLH

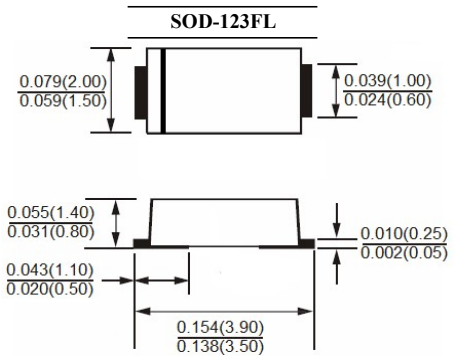
MECHANICAL DATA

Case : Molded plastic, SOD-123FL

Terminals: Solder plated, solderable per

MIL-STD-750, method 2026 guaranteed

Polarity : Color band denotes cathode end



Dimensions in inches and (millimeters)

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%.

Parameter	Symbols	SS12FLH	SS13FLH	SS14FLH	SS16FLH	SS18FLH	SS110FLH	SS115FLH	SS120FLH	Units	
Marking Code		K12	K13	K14	K16	K18	K110	K115	K120		
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	60	80	100	150	200	Volts	
Maximum RMS Voltage	V_{RMS}	14	21	28	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at T_L (See Fig. 1)	$I_{(AV)}$	1.0								Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25.0								Amp	
Maximum Forward Voltage at 1.0A (Note 1)	V_F	0.55		0.70		0.85		0.95		Volts	
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	0.5						0.2		mAmp	
		10						5			
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	30.0								°C/W	
Operating Junction Temperature Range	T_J	-55 to +125				-55 to +150					°C
Storage Temperature Range	T_{stg}	-55 to +125				-55 to +150					

NOTES:

1- Pulse test: 300µs pulse width, 1% duty cycle

2- Mounted on PCB with 5mm×5mm Cu pads ($\approx 40 \mu\text{m}$ thick)



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RATINGS AND CHARACTERISTIC CURVES

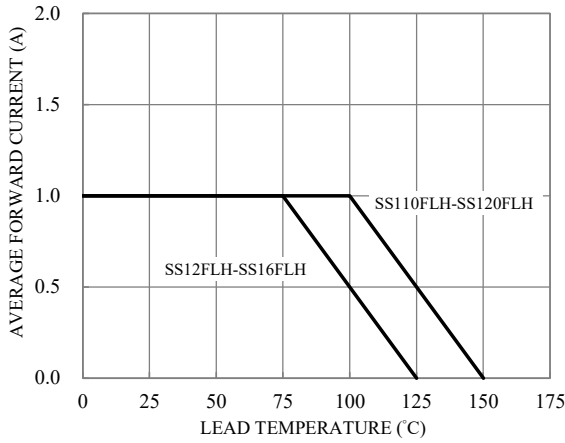


Fig.1-FORWARD CURRENT DERATING CURVE

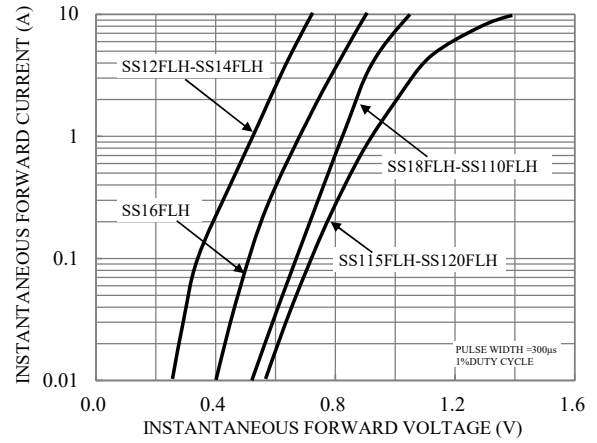


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

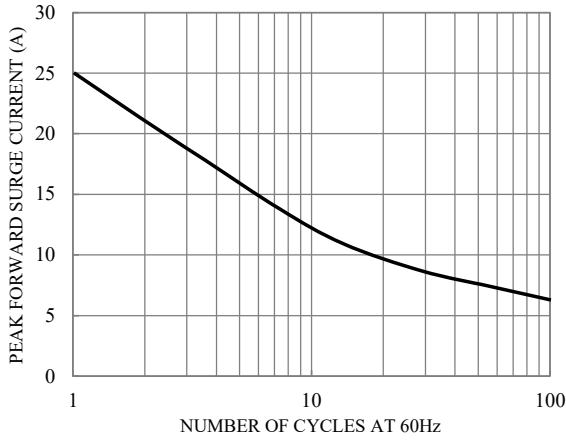


Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

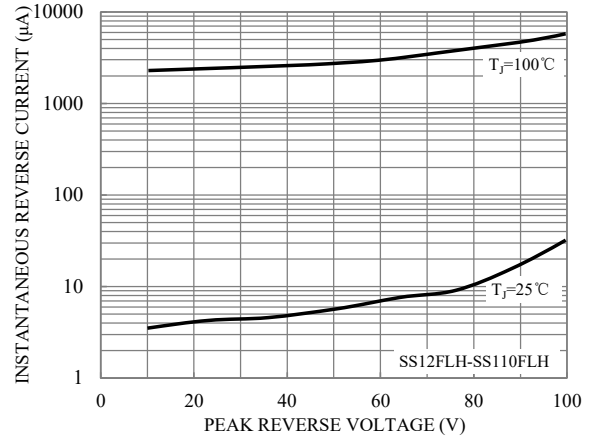


Fig.4-TYPICAL REVERSE CHARACTERISTICS

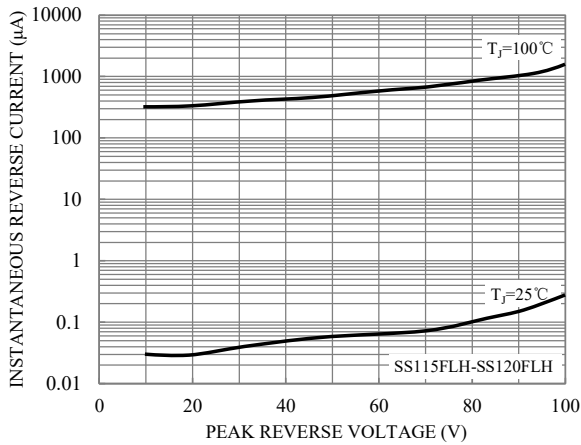


Fig.5-TYPICAL REVERSE CHARACTERISTICS