

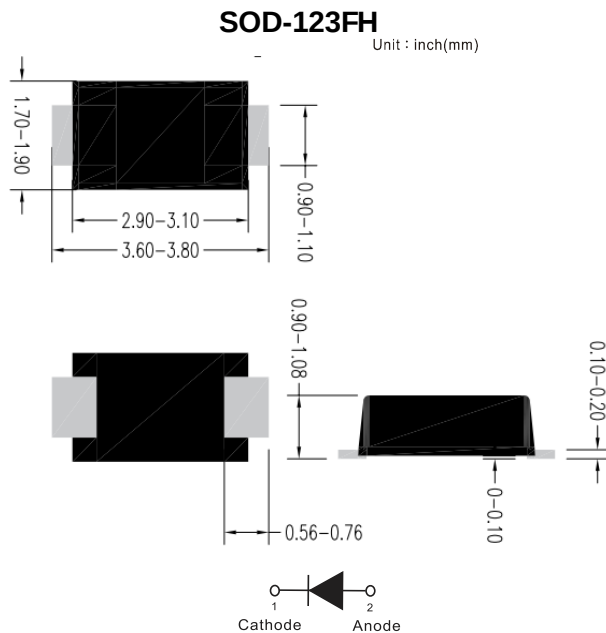
Surface Mount Schottky Barrier Diode

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- AEC-Q101 qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Mechanical Data

- Package: SOD-123FH
- Terminals: Tin plated leads, solderable per
- Polarity: Cathode line denotes the cathode end



Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS12 FHQ	SS13 FHQ	SS14 FHQ	SS15 FHQ	SS16 FHQ	SS18 FHQ	SS110 FHQ	SS115 FHQ	SS120 FHQ
Repetitive peak reverse voltage	VRRM	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, T_a (FIG.1)	IO	A	1.0								
Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	30								
Storage temperature	T_{stg}	$^\circ\text{C}$	-55 ~+150								
Junction temperature	T_j	$^\circ\text{C}$	-55 ~+150						-55 ~+175		

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	SS12 FHQ	SS13 FHQ	SS14 FHQ	SS15 FHQ	SS16 FHQ	SS18 FHQ	SS110 FHQ	SS115 FHQ	SS120 FHQ
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=1.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	mA	Ta=25°C	0.50					0.10			
			Ta=100°C	10					5			

Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS12 FHQ	SS13 FHQ	SS14 FHQ	SS15 FHQ	SS16 FHQ	SS18 FHQ	SS110 FHQ	SS115 FHQ	SS120 FHQ
Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	70 ⁽¹⁾								
	$R_{\theta J-L}$		20 ⁽¹⁾								

Note:

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

Characteristics (Typical)

FIG1: I_o - T_L Curve

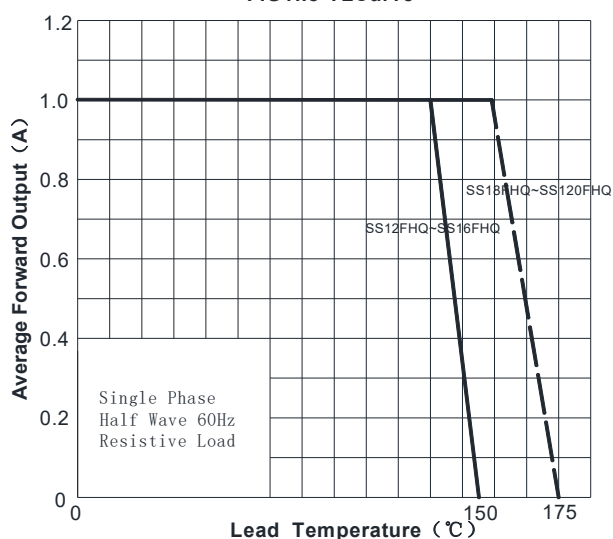


FIG2: Surge Forward Current Capability

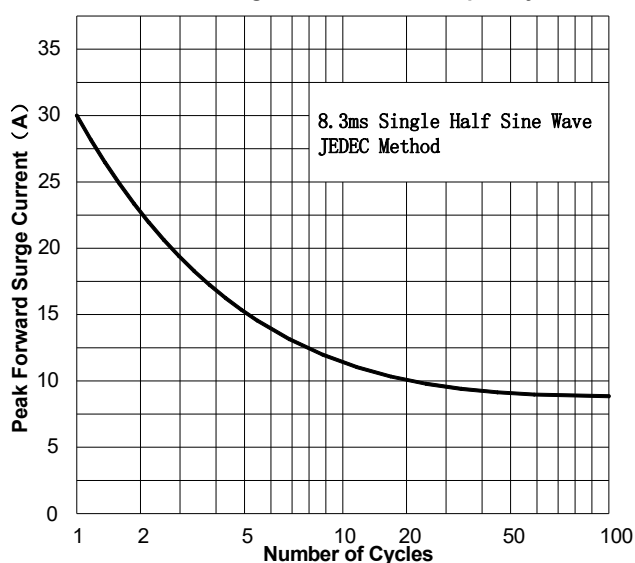


FIG3: Forward Voltage

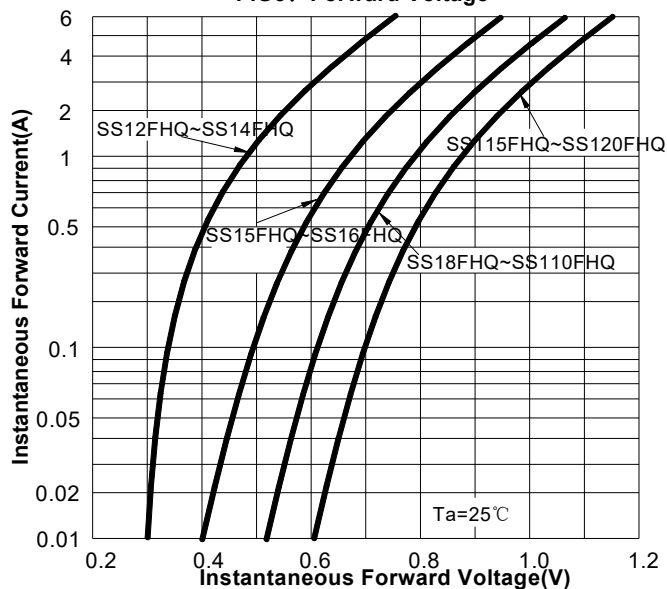


FIG4: Typical Reverse Characteristics

