

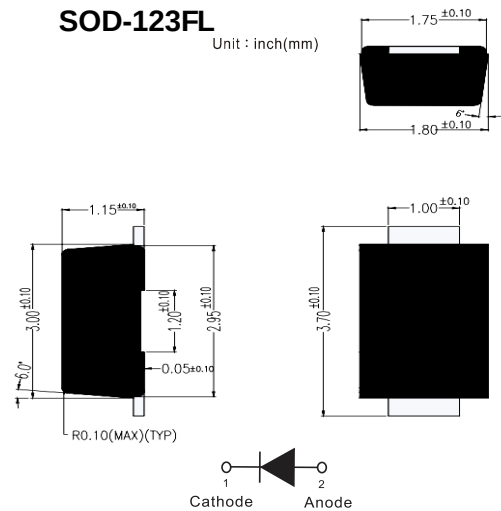
Surface Mount Rectifier Diode

Features

- Glass passivated junction chip
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- AEC-Q101 qualified
- Comply with RoHS standard, halogen-free

Mechanical Data

- package: SOD-123FL
- Polarity: Indicated by cathode band
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any



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

Parameter	Symbol	Unit	S2AFLQ	S2BFLQ	S2DFLQ	S2GFLQ	S2JFLQ	S2KFLQ	S2MFLQ
Repetitive peak reverse voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, Resistance load, T_a (FIG.1)	I_o	A	2.0						
Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	I_{FSM}	A	50						
Storage temperature	T_{stg}	$^\circ\text{C}$	-55 ~+150						
Junction temperature	T_j	$^\circ\text{C}$	-55 ~+150						

Thermal Performance

Parameter	Symbol	Unit	S2AFLQ	S2BFLQ	S2DFLQ	S2GFLQ	S2JFLQ	S2KFLQ	S2MFLQ
Thermal resistance	R θ J-A	$^\circ\text{C/W}$	70 ¹⁾						
	R θ J-L		20 ¹⁾						
	R θ J-C		28 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.

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

Parameter	Symbol	Unit	Test Conditions	S2AFLQ	S2BFLQ	S2DFLQ	S2GFLQ	S2JFLQ	S2KFLQ	S2MFLQ
Maximum instantaneous forward voltage drop per diode	V_F	V	IFM=2.0A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	μA	$T_a=25^\circ\text{C}$	5						
			$T_a=125^\circ\text{C}$	100						



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

FIG1:Io-TC Curve

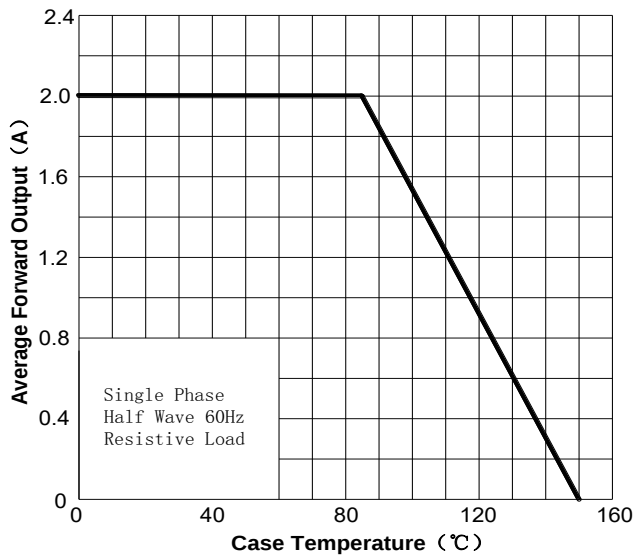


FIG2: Surge Forward Current Capability

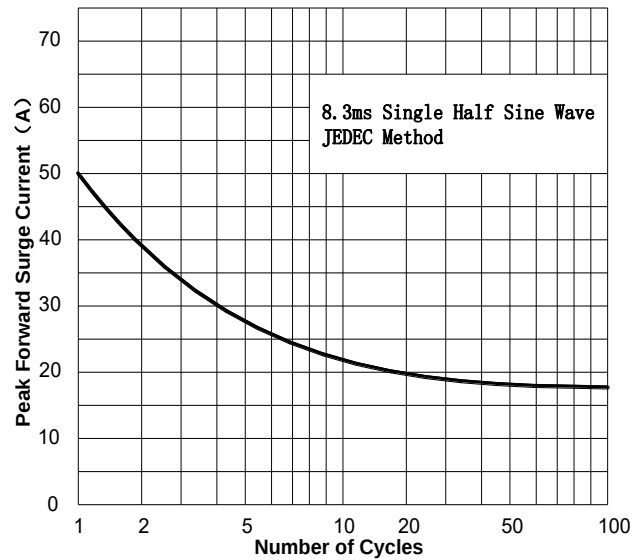


FIG3: Forward Voltage

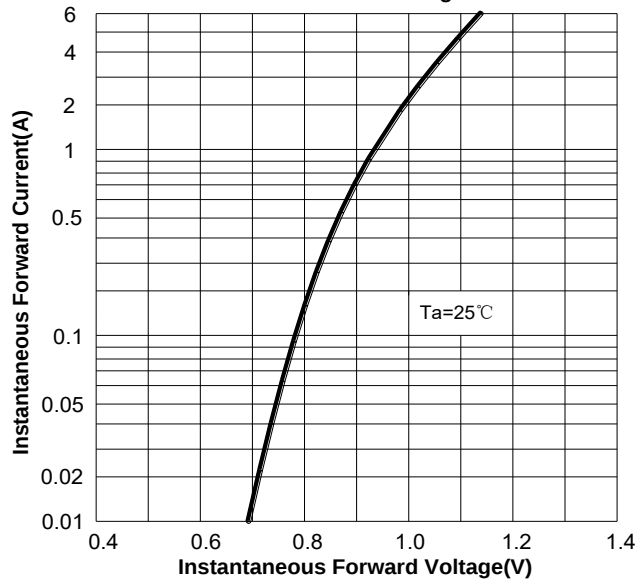


FIG4: Typical Reverse Characteristics

