GS1004FLQ~GS1010FLQ

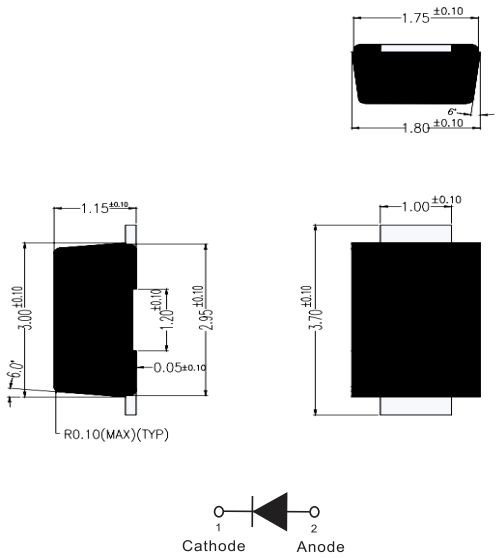
Surface Mount Rectifier Diode

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

SOD-123FL

Unit : inch(mm)



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°C unless otherwise noted)

Parameter	Symbol	GS1004 FLQ	GS1006 FLQ	GS1010 FLQ	Unit
Repetitive peak reverse voltage	V_{RRM}	400	600	1000	V
Reverse voltage, total rms value	V_{RMS}	280	420	700	V
Maximum DC blocking voltage	V_{DC}	400	600	1000	
Forward current	$I_{F(AV)}$	1			A
Surge peak forward current, 8.3 ms single half sine-wave superimposed on rated load per diode	I_{FSM}	30			A
Junction temperature	T_J	- 55 to +150			°C
Storage temperature	T_{STG}	- 55 to +150			°C

Thermal Performance

Parameter	Symbol	Typ	Unit
Junction to Lead Thermal Resistance	$R_{\Theta JL}$	25	°C/W
Junction to Ambient Thermal Resistance	$R_{\Theta JA}$	85	°C/W

Electrical Specifications (T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Typ	Max	Unit
Forward voltage (1)	I_F = 1A, T_J = 25°C	V_F	-	1.1	V
Reverse current @ rated V_R per diode (2)	T_J = 25°C	I_R	-	1	μA
	T_J = 125°C		-	50	μA
Junction capacitance	1 MHz, V_R=4V	C_J	7	-	pF

Notes:

1. Pulse test with PW=0.3 ms
2. Pulse test with PW=30 ms

Characteristics Curves (T_A=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

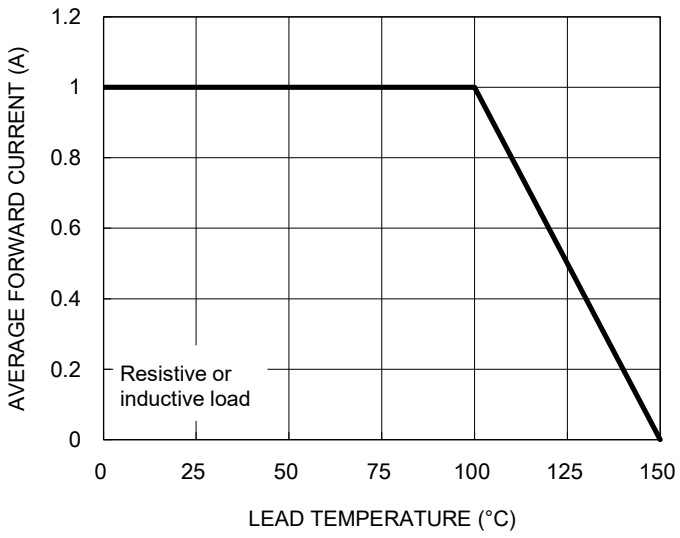


Fig.2 Typical Junction Capacitance

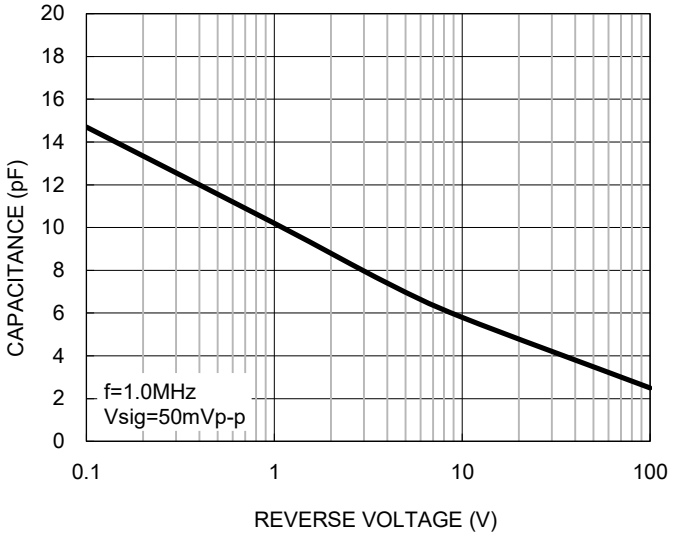


Fig.3 Typical Reverse Characteristics

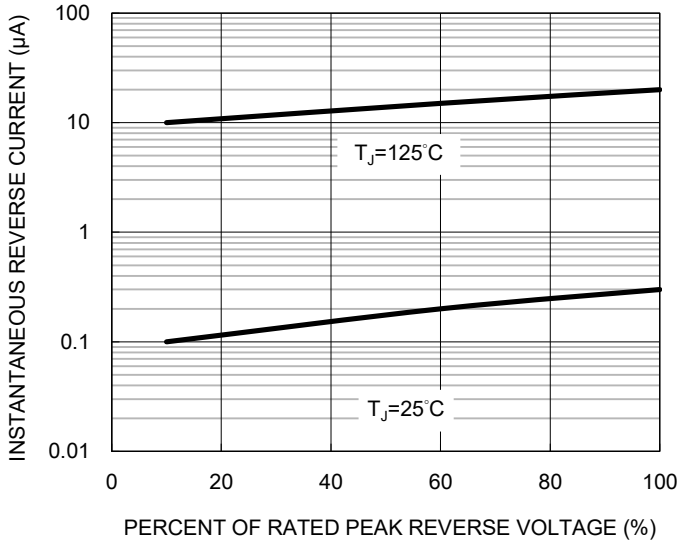


Fig.4 Typical Forward Characteristics

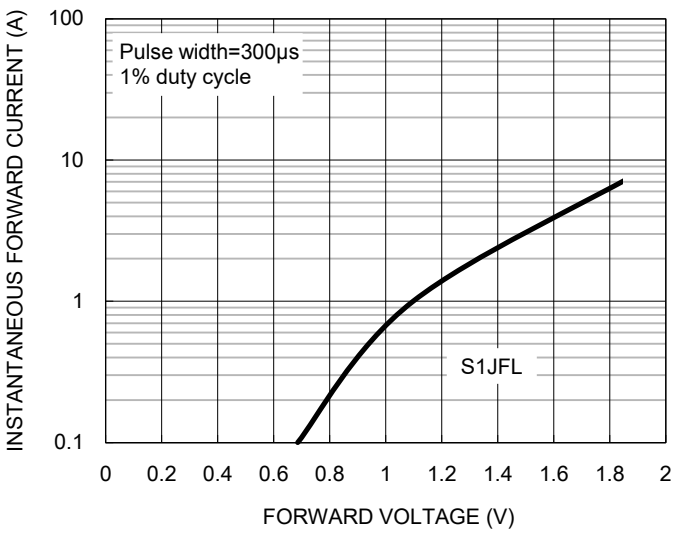


Fig.5 Maximum Non-repetitive Forward Surge Current