



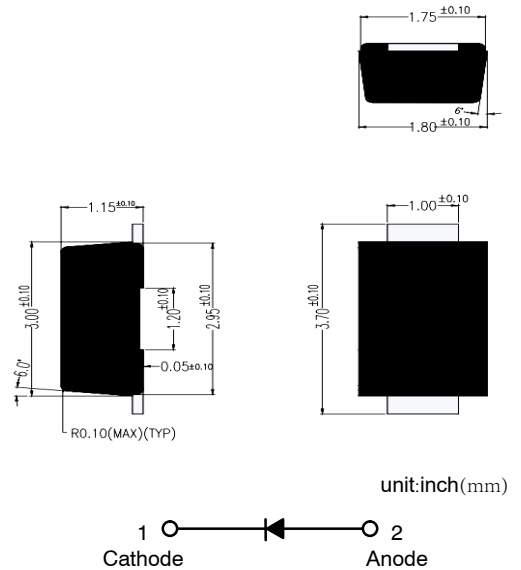
■ Features

- Glass passivated chip junction
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

■ MECHANICAL DATA

- Package: SOD-123FL
- Terminals: Matte tin plated leads, solderable per J-STD-002
- Polarity: Indicated by cathode band
- Meet JESD 201 class 1A whisker test

SOD-123FL



■ ABSOLUTE MAXIMUM RATINGS (T_a=25°C Unless otherwise noted)

PARAMETER	SYMBOL	FR107	UNIT
Repetitive peak reverse voltage	V _{RRM}	1000	V
Reverse voltage, total rms value	V _{RMS}	700	V
Maximum DC blocking voltage	V _{DC}	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 _{θJL}	25	°C/W
Junction to Ambient Thermal Resistance	R _{θJA}	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

■ **RATINGS AND CHARACTERISTICS CURVES** ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

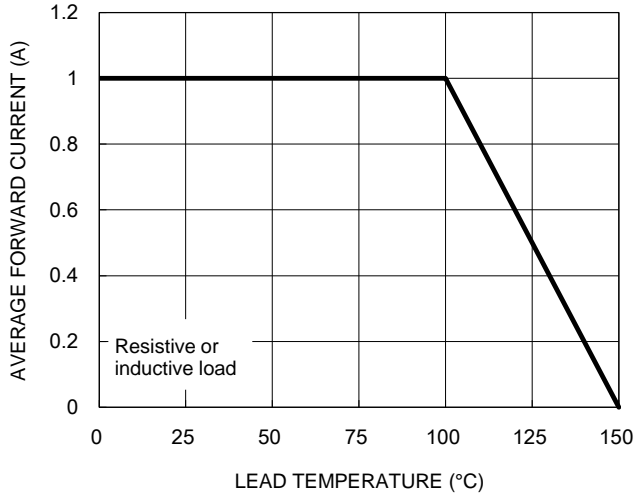


Fig.2 Typical Junction Capacitance

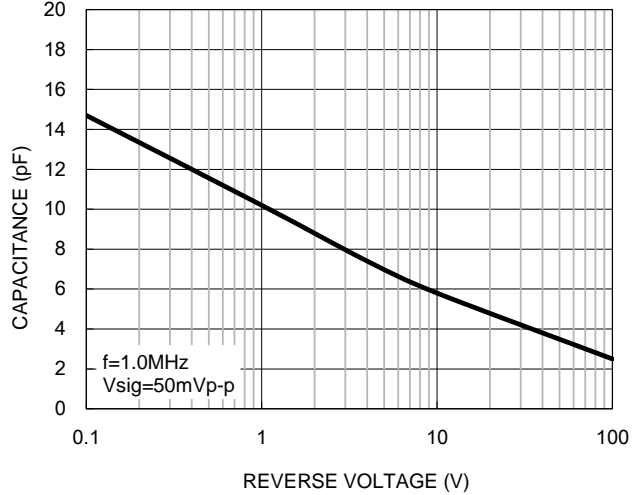


Fig.3 Typical Reverse Characteristics

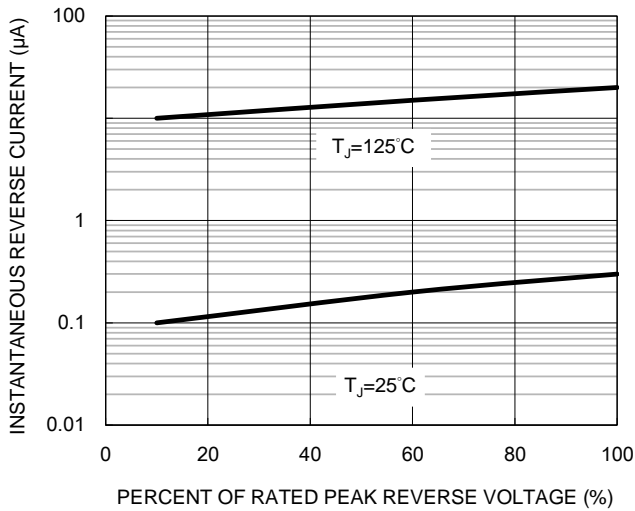


Fig.4 Typical Forward Characteristics

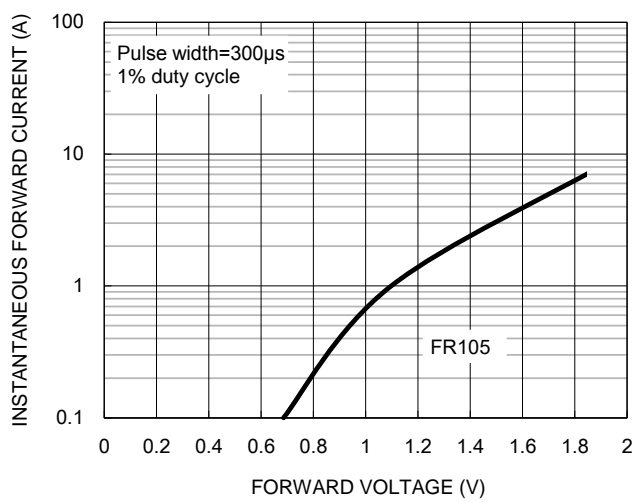
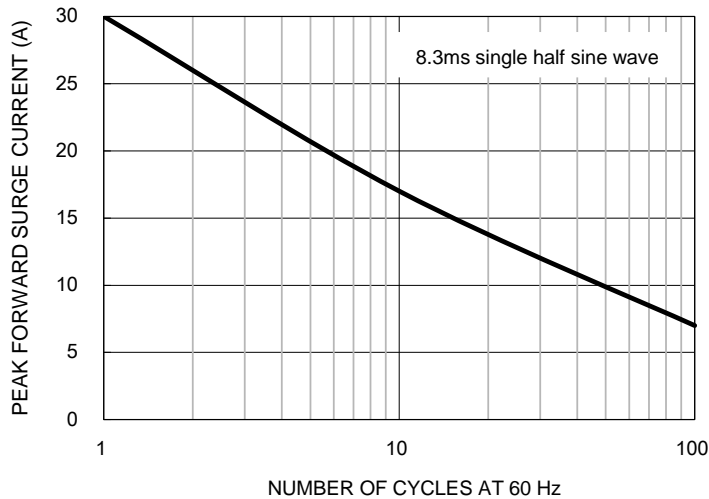


Fig.5 Maximum Non-repetitive Forward Surge Current



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