

Small Surface Mount Fast Recovery Rectifier

Reverse Voltage 1000 Volts, Forward Current 1.0 Ampere

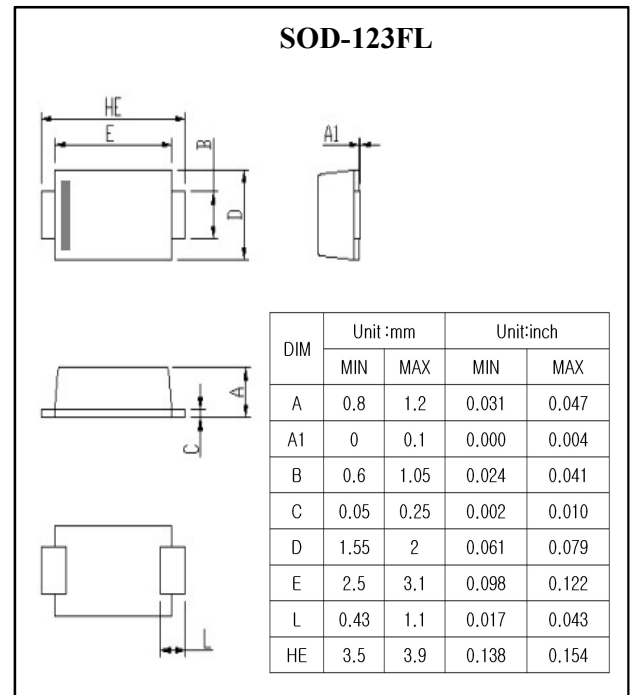
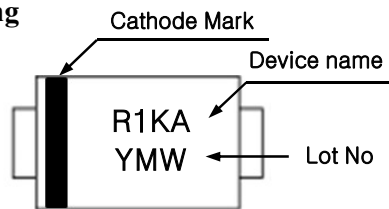
Features

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High temperature soldering : 260°C / 10 seconds at terminals
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Case : JEDEC SOD-123FL, Molded plastic over passivated junction
- Terminals : Solderable per MIL-STD-750, Method 2026
- Standard Packaging : 8mm tape (EIA-481)
- Polarity : Color band denotes cathode end
- Weight : 0.0168 grams (Approx.)

Marking



Maximum Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

Single phase half wave 60 Hz, resistive or inductive load, for capacitive load, derate current by 20%

Parameter	Symbol	Rated Value	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V	
Maximum RMS Voltage	V_{RMS}	700	V	
Maximum DC Blocking Voltage	V_{DC}	1000	V	
Maximum Average Forward Rectified Current	$I_F(AV)$	1.0	A	
Peak Forward Surge Current : 8.3ms Single Half Sine-wave Superimposed on Rated Load(JEDEC method)	I_{FSM}	50	A	
Maximum instantaneous forward voltage	V_F	1.15	V	$I_F=0.7A$
		1.3	V	$I_F=1.0A$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1.0	uA	$T_a=25^\circ C$
		50	uA	$T_a=125^\circ C$
Typical Thermal Resistance	$R_{th(j-a)}$	180	°C/W	
Maximum Reverse Recovery Time	t_{rr}	170	ns	Note 1
Typical Junction Capacitance	C_J	9.0	pF	Note 2
Operation Junction Temperature Range	T_J	-55 to +150	°C	
Storage Temperature Range	T_{STG}	-55 to +150	°C	

Note 1. Reverse Recovery Test Conditions : $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

Note 2. Measured at 1.0MHz and applied reverse voltage of 4.0 volts



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

Fig.1 Forward Current Derating Curve

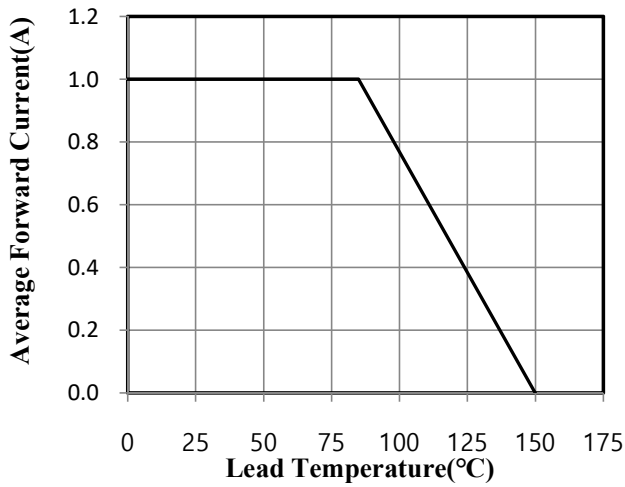


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

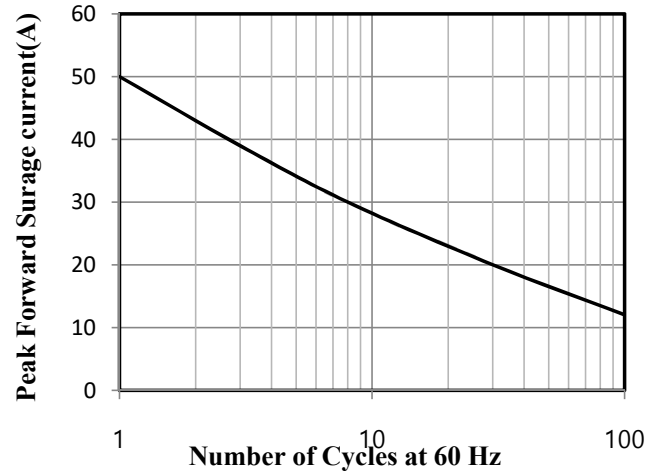


Fig.3 Typical Instantaneous Forward Characteristics

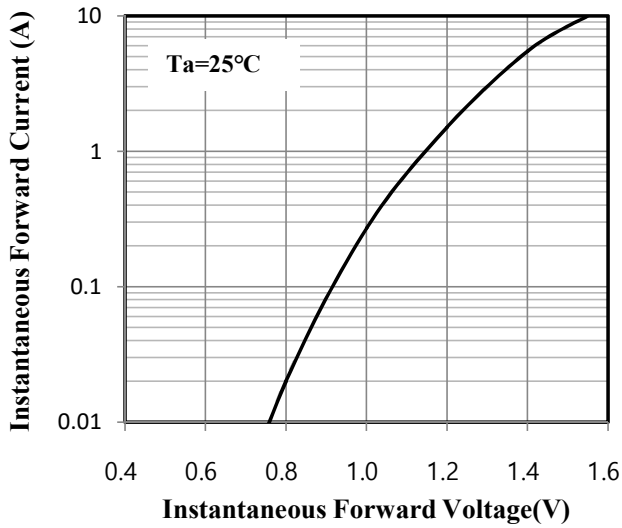


Fig.4 Typical Junction Capacitance

