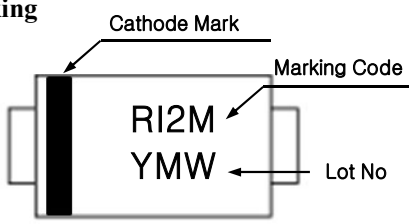
Small Surface Mount Fast Recovery Rectifiers
Reverse Voltage 100 to 1000 Volts, Forward Current 1.2 Amperes

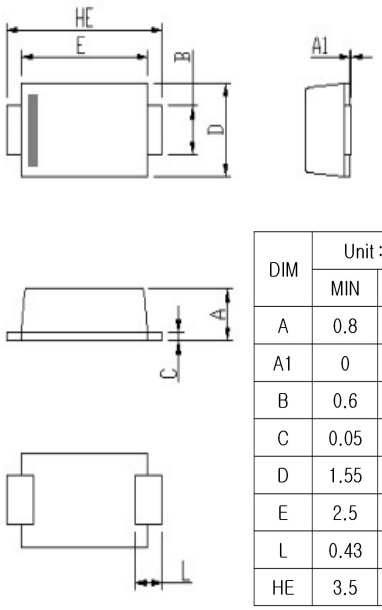
Features
- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High temperature soldering : 260°C / 10 seconds at terminals
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std..(Halogen 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 : 0.017 grams (Approx.)

Marking



SOD-123FL



DIM	Unit :mm		Unit:inch	
	MIN	MAX	MIN	MAX
A	0.8	1.2	0.031	0.047
A1	0	0.1	0.000	0.004
B	0.6	1.05	0.024	0.041
C	0.05	0.25	0.002	0.010
D	1.55	2	0.061	0.079
E	2.5	3.1	0.098	0.122
L	0.43	1.1	0.017	0.043
HE	3.5	3.9	0.138	0.154

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	RS 1201FL	RS 1202FL	RS 1204FL	RS 1206FL	RS 1208FL	RS 1210FL	Unit	Remark
Marking Code		R12B	R12D	R12G	R12J	R12K	R12M		
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current	$I_F(AV)$	1.2						A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50						A	
Maximum Instantaneous Forward Voltage	V_F	1.30						V	I_F=1.2A
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1.0						uA	Ta=25°C
		50						uA	Ta=125℃
Typical Junction Capacitance	C_J	7.5						pF	Note 1
Reverse Recovery Time	trr	160						ns	Note 2
Typical Thermal Resistance	Rth(j-a)	60						℃ /W	Note 3
Operation Junction Temperature Range	T_J	-55 to +150						°C	
Storage Temperature Range	T_{STG}	-55 to +150						°C	

Note 1. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.
Note 2. Reverse Recovery Test Conditions : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
Note 3. Thermal resistance from junction to ambient.

Ratings and Characteristics Curves (Ta=25℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

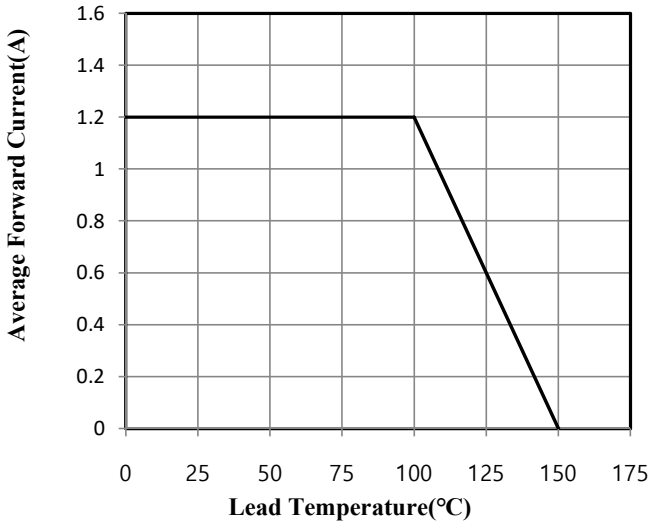


Fig.2 Maximum Non-Repetitive Peak Forward Surage Current

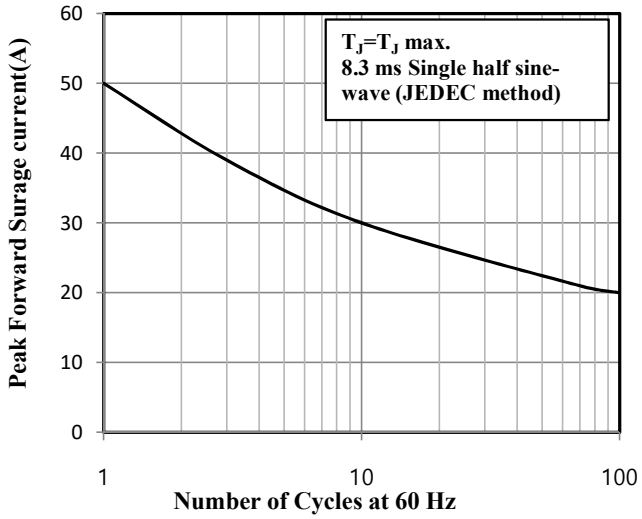


Fig.3 Typical Instantaneous Forward Characteristics

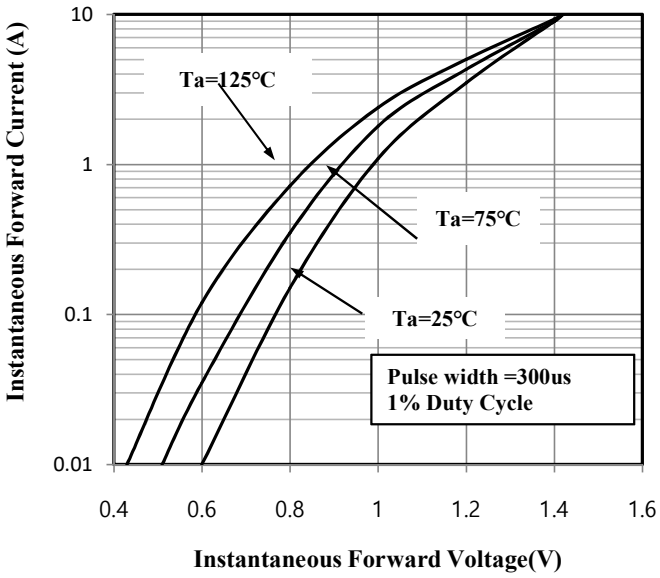


Fig.4 Typical Junction Capacitance

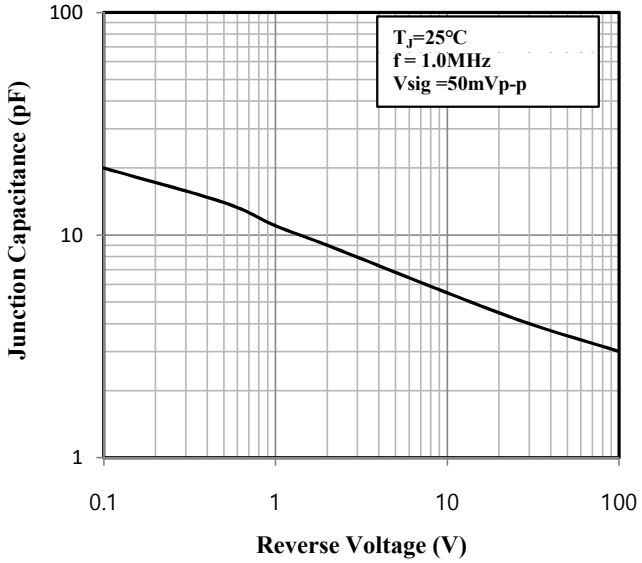


Fig.5 Typical Reverse Charateristics

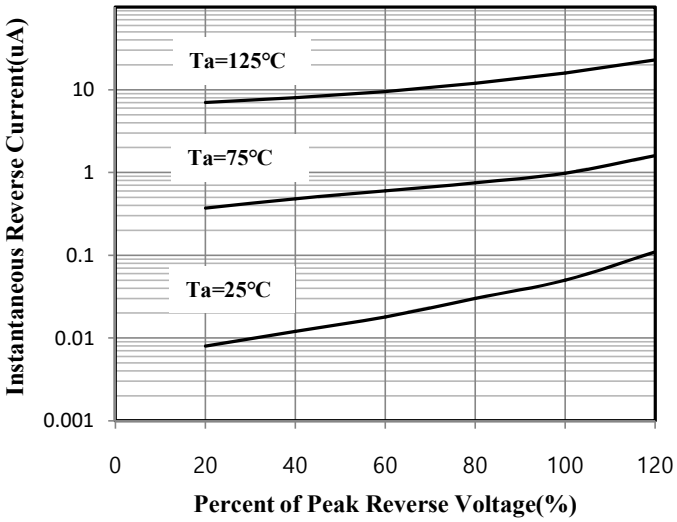


Fig.6 Maximum non-repetive time surge current