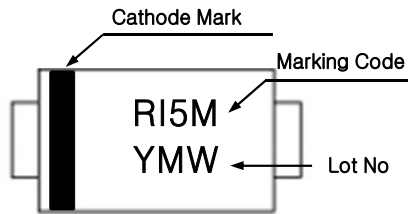
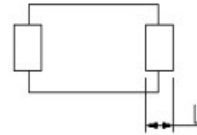
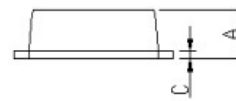
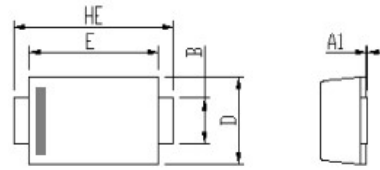


**Small Surface Mount Fast Recovery Rectifiers**  
**Reverse Voltage 100 to 1000 Volts, Forward Current 1.5 Amperes**
**Features**

- 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 1501FL	RS 1502FL	RS 1504FL	RS 1506FL	RS 1508FL	RS 1510FL	Unit	Remark
Marking Code		R15B	R15D	R15G	R15J	R15K	R15M		
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	$I_F(AV)$	1.5						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	$I_F=1.5A$
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 Junction Capacitance	$C_j$	7.5						pF	Note 1
Reverse Recovery Time	$t_{rr}$	160						ns	Note 2
Typical Thermal Resistance	$R_{th(j-a)}$	60						$^\circ C /W$	Note 3
Operation Junction Temperature Range	$T_J$	-55 to +150						$^\circ C$	
Storage Temperature Range	$T_{STG}$	-55 to +150						$^\circ C$	

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

Fig.1 Forward Current Derating Curve

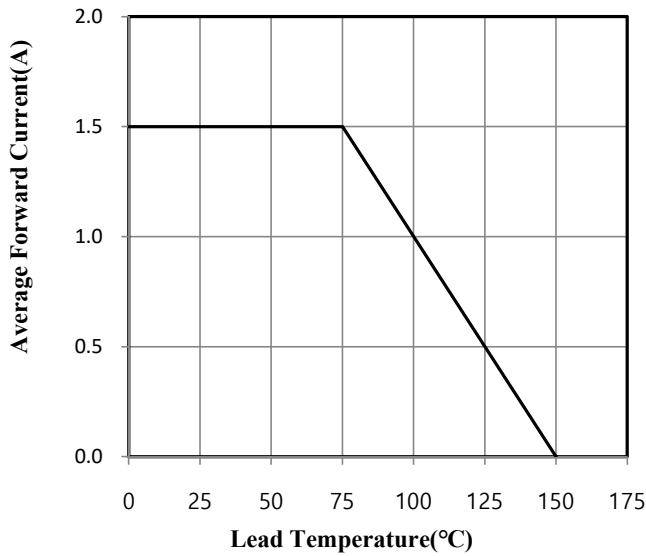


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

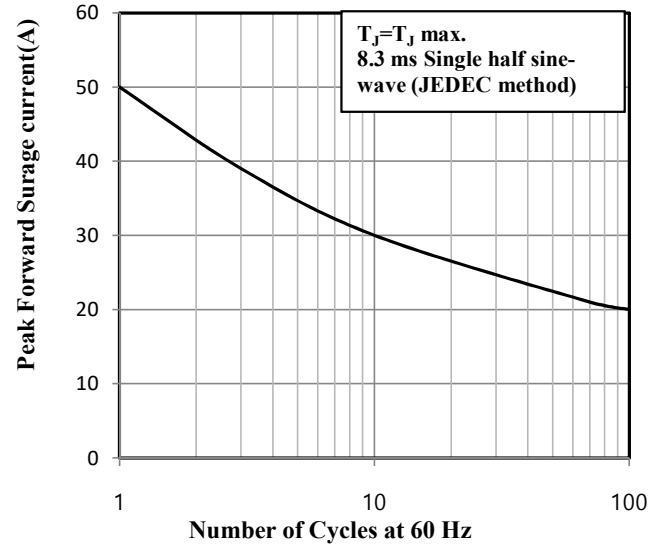


Fig.3 Typical Instantaneous Forward Characteristics

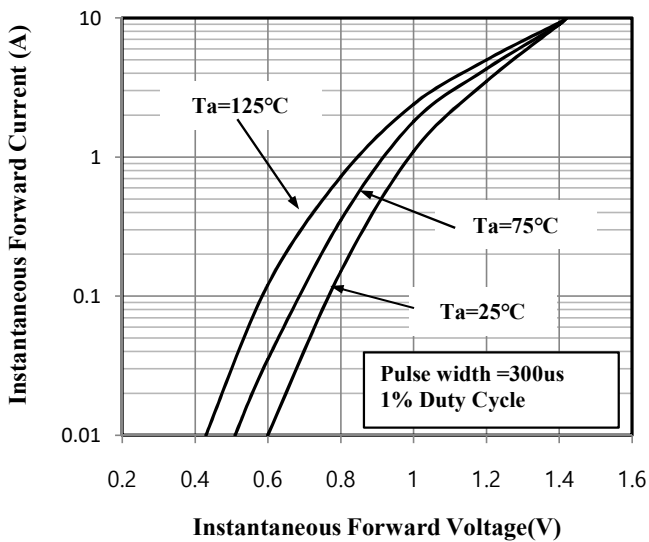


Fig.4 Typical Junction Capacitance

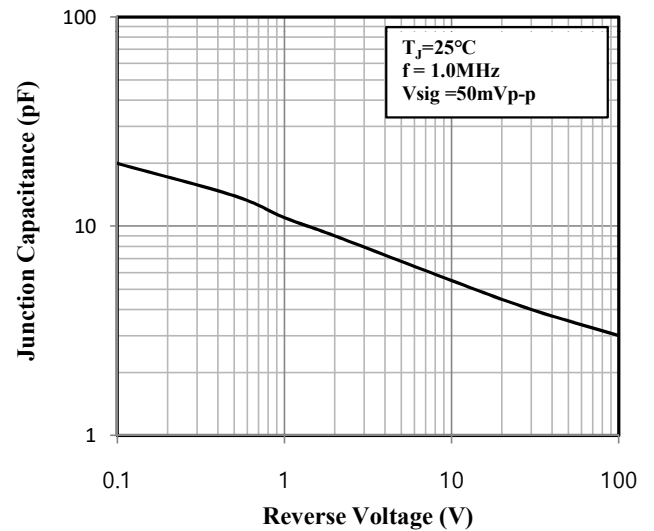


Fig.5 Typical Reverse Characteristics

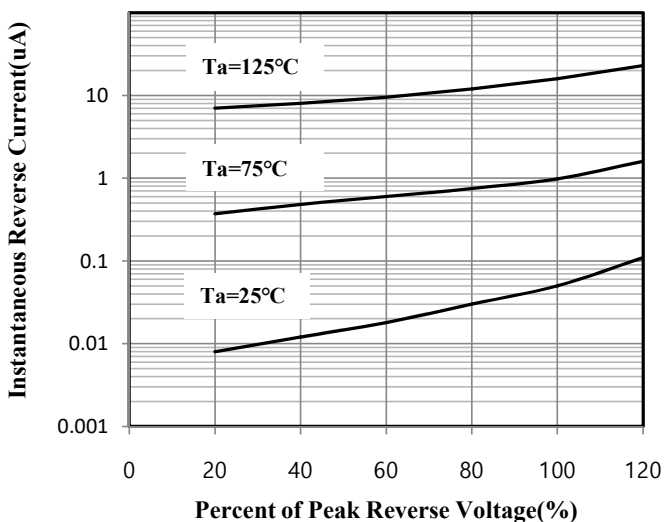


Fig.6 Maximum non-repetitive time surge current

