



RS1MF-LE

FAST RECOVERY RECTIFIERS

Voltage

1000 V

Current

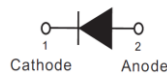
1 A

Features

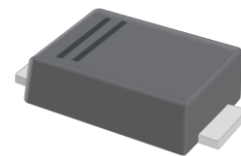
- Glass passivated junction
- Ultra thin profile package for space constrained utilization
- Easy pick and place package suitable for automated handling
- Plastic package has Underwriters Laboratory
Flammability Classification 94V-O utilizing
Flame Retardant Epoxy Molding Compound
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Case: Molded plastic, SMAF-1
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end
- Approx. Weight: 0.00093 ounces, 0.027 grams
- Marking: LRS1MF



SMAF-1



Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum rms voltage	V_{RMS}	700	V
Maximum dc blocking voltage	V_R	1000	V
Maximum average forward current	$I_{F(AV)}$	1	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25	A
Typical forward voltage at 1A	V_F	1.3	V
Maximum dc reverse current at rated dc blocking voltage	I_R	5	μA
Typical junction capacitance Measured at 1MHz and applied $V_R=4\text{V}$	C_J	8	pF
Maximum reverse recovery time	(Note 3) T_{RR}	500	ns
Typical thermal resistance	(Note 1) $R_{\theta JA}$	150	$^{\circ}\text{C/W}$
	(Note 2) $R_{\theta JC}$	18	
Operating and storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note : 1. Mounted on a FR4 PCB, single-sided copper, mini pad.

2. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area

3. Reverse Recovery Test Conditions : $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$



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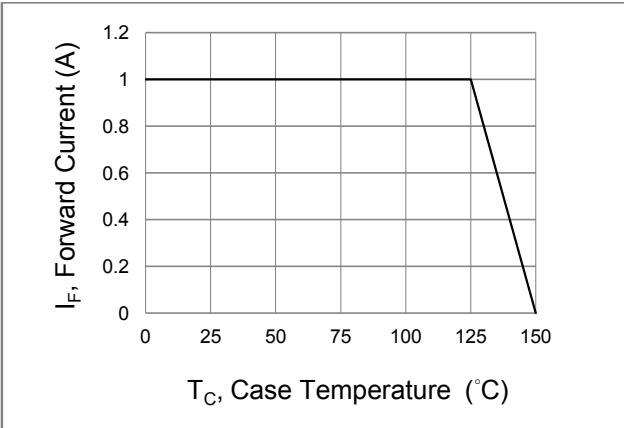


Fig.1 Forward Current Derating Curve

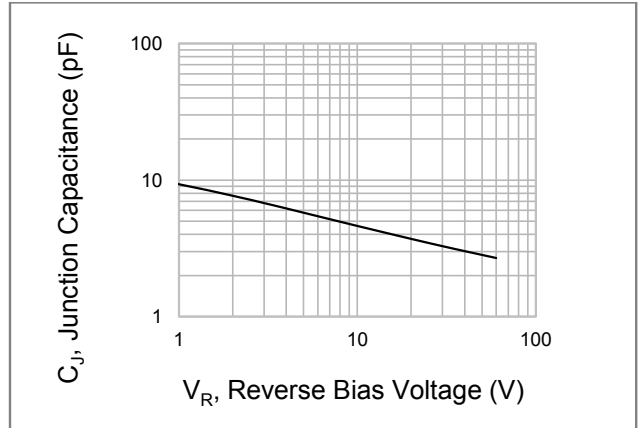


Fig.2 Typical Junction Capacitance

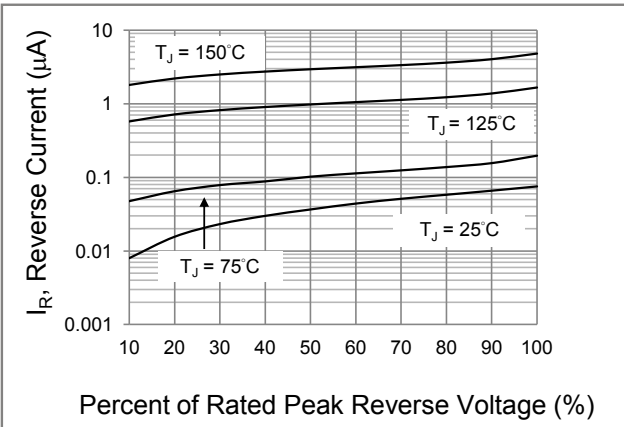


Fig.3 Typical Reverse Characteristics

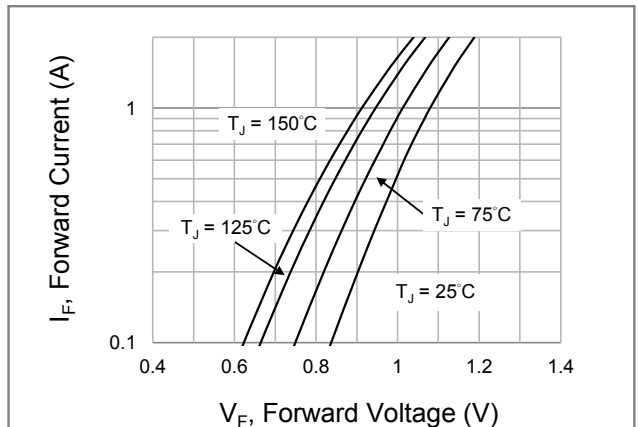
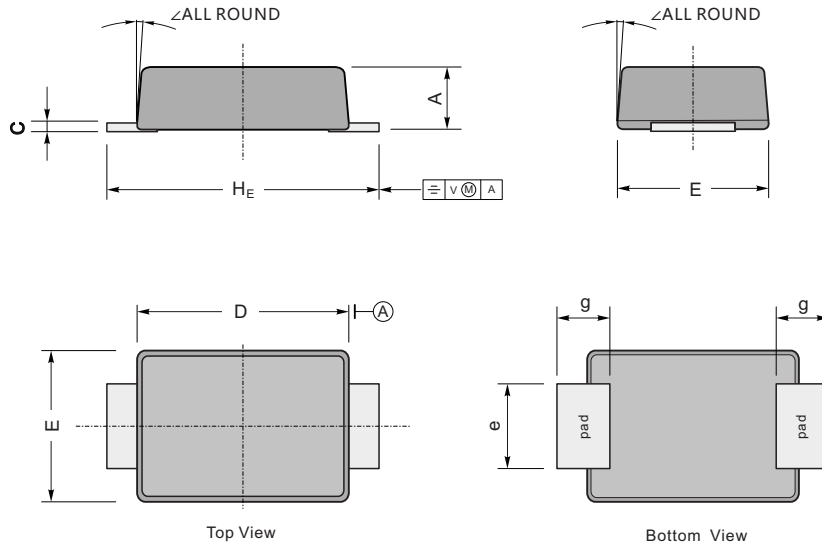


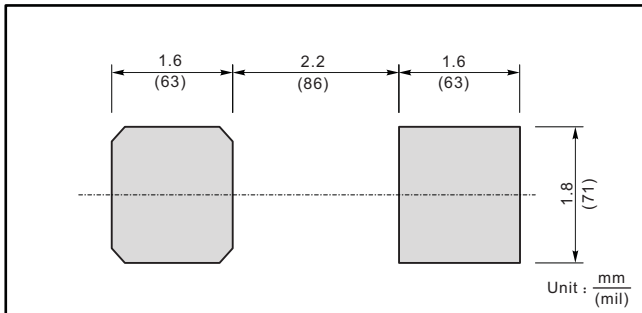
Fig.4 Typical Forward Characteristics



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UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	





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