

## Surface Mount Rectifiers

## RS1AFA--RS1MFA

### FEATURES

- Low profile package
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- High temperature soldering: 260°C/10 seconds at terminals
- Plastic package has underwriters, laborator flammability classification 94V-0



### MECHANICAL DATA

- Case :JEDEC SMAFL, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: color band denotes cathode end

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	RS1AFA	RS1BFA	RS1DFA	RS1GFA	RS1J FA	RS1KFA	RS1MFA	UNITS
Marking Code		R1A	R1B	R1D	R1G	R1J	R1K	R1M	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current $T_L=90^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	30							A

### Thermal Characteristics

Characteristic	Symbol	RS1AFA	RS1BFA	RS1DFA	RS1GFA	RS1J FA	RS1KFA	RS1MFA	UNITS
Operating temperature range	$T_J$	- 55 ----- + 150							°C
storage temperature range	$T_{STG}$	- 55 ----- + 150							°C

### Electrical Characteristics (@TA = 25°C unless otherwise specified)

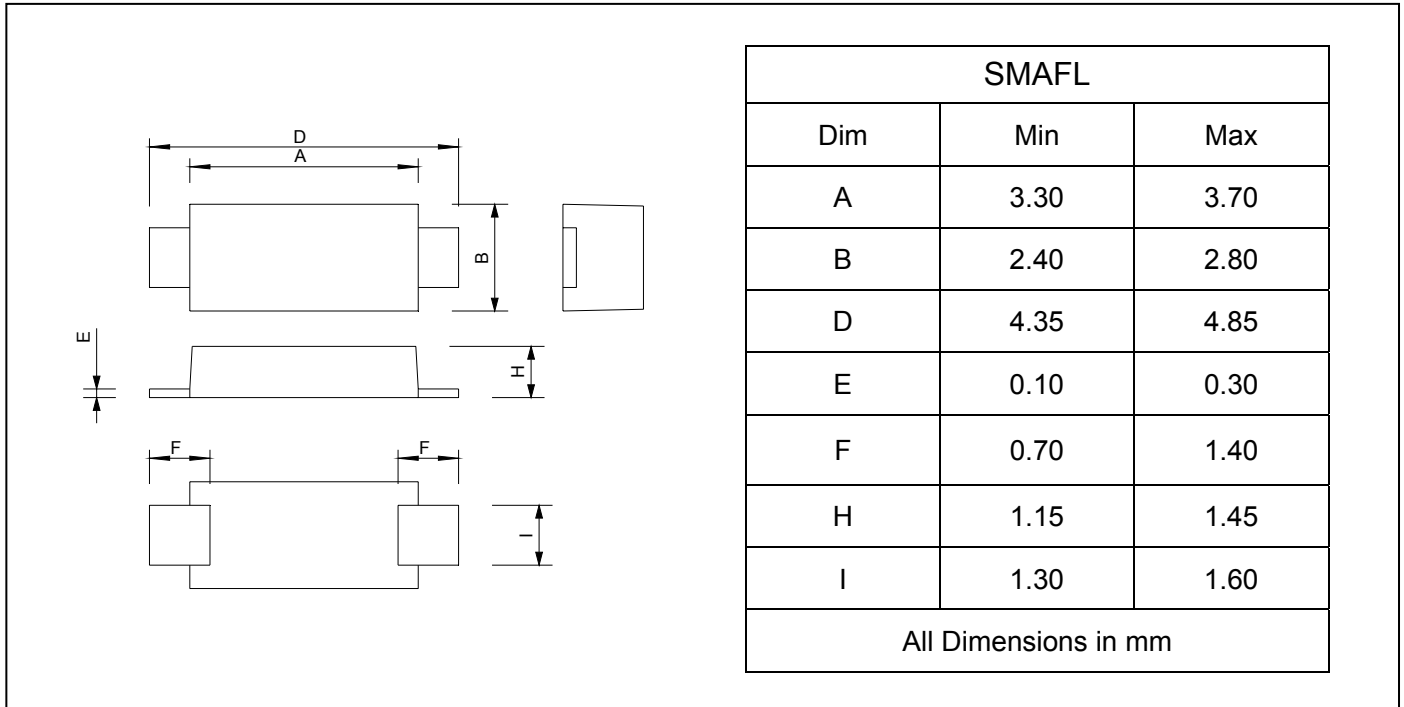
Characteristic	Symbol	RS1AFA	RS1BFA	RS1DFA	RS1GFA	RS1J FA	RS1KFA	RS1MFA	UNITS
Maximum instantaneous forward voltage at 1.0 A	$V_F$	1.3							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	5.0 50							$\mu\text{A}$
Typical reverse recovery time (Note1)	$t_{rr}$	150				250	500		ns

NOTE: 1.Reverse recovery time test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

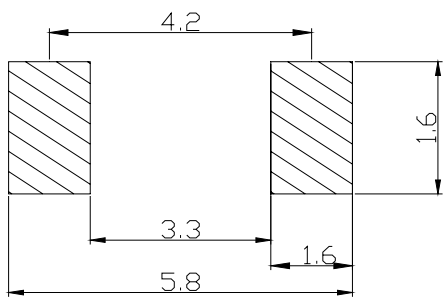
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**PACKAGE OUTLINE DIMENSIONS**



**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

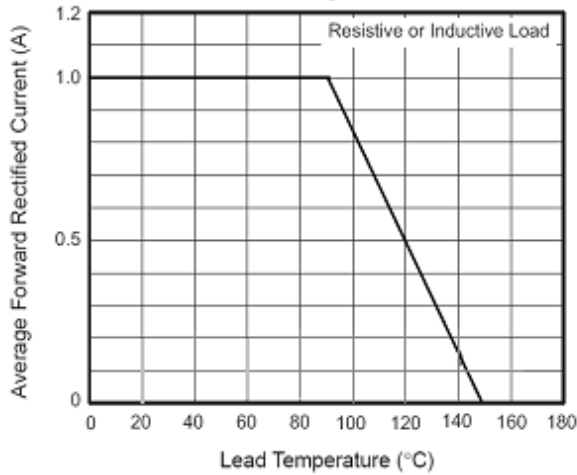
Device	Package	Shipping
RS1AFA--RS1MFA	SMAFL	10000/Tape&Reel



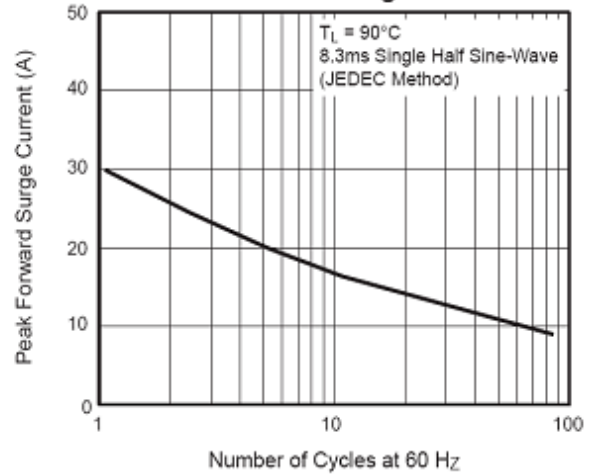
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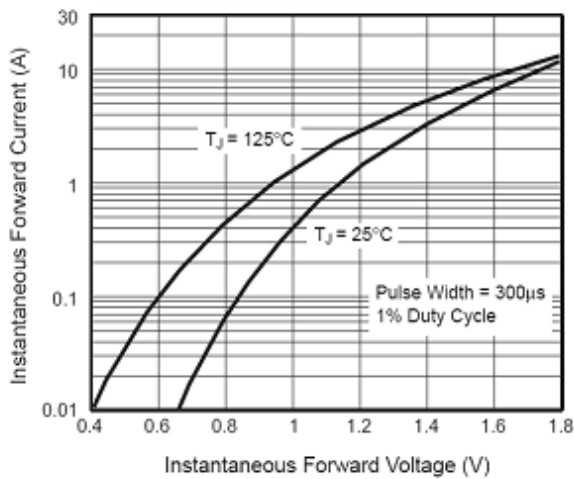
**Fig. 1 — Forward Current Derating Curve**



**Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 — Typical Instantaneous Forward Characteristics**



**Fig. 4 — Typical Reverse Characteristics**

