

Surface Mount Rectifiers

RS2AFA--RS2MFA

FEATURES

- Low profile package
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Plastic package has underwriters, laborator flammability classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals



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 | RS2AFA | RS2BFA | RS2DFA | RS2GFA | RS2JFA | RS2KFA | RS2MFA | UNITS |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|-------|
| Marking code | | R2A | R2B | R2D | R2G | R2J | R2K | R2M | |
| 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 $T_L=90^\circ\text{C}$ | $I_{F(AV)}$ | 2.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load | I_{FSM} | 50 | | | | | | | A |

Thermal Characteristics

| Characteristic | Symbol | RS2AFA | RS2BFA | RS2DFA | RS2GFA | RS2JFA | RS2KFA | RS2MFA | 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)

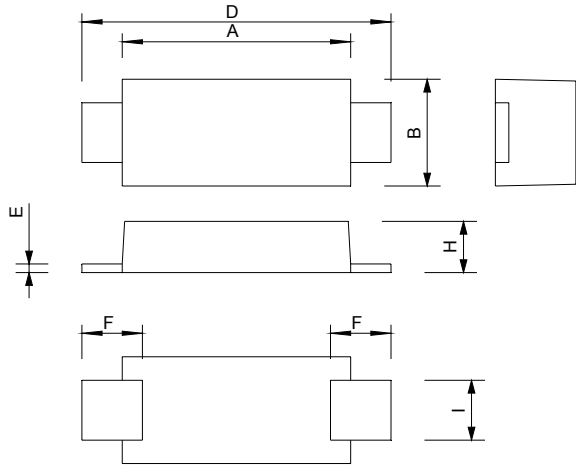
| Characteristic | Symbol | RS2AFA | RS2BFA | RS2DFA | RS2GFA | RS2JFA | RS2KFA | RS2MFA | UNITS |
|--|----------|------------|--------|--------|--------|--------|--------|--------|---------------|
| Maximum instantaneous forward voltage at 2.0 A | V_F | 1.30 | | | | | | | V |
| Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$ | I_R | 5.0 200 | | | | | | | μA |
| 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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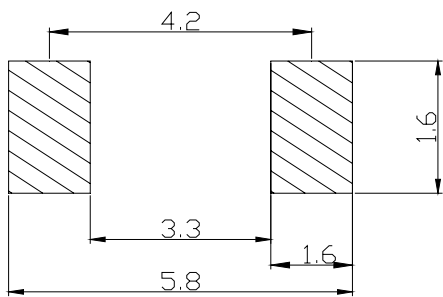
RS2AFA--RS2MFA

PACKAGE OUTLINE DIMENSIONS



| SMAFL | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 3.30 | 3.70 |
| B | 2.40 | 2.80 |
| D | 4.35 | 4.85 |
| E | 0.10 | 0.30 |
| F | 0.70 | 1.40 |
| H | 1.15 | 1.45 |
| I | 1.30 | 1.60 |
| All Dimensions in mm | | |

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

| Device | Package | Shipping |
|----------------|---------|-----------------|
| RS2AFA--RS2MFA | SMAFL | 10000/Tape&Reel |



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FIG.1 – FORWARD DERATING CURVE

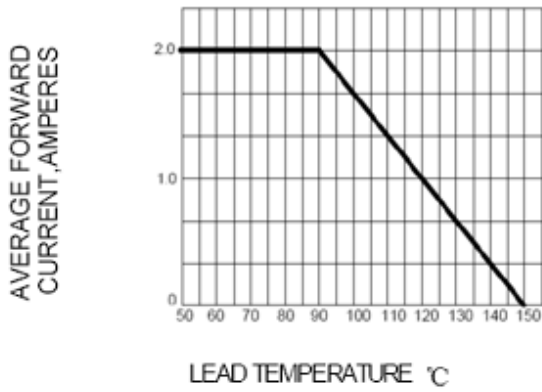


FIG.2 PEAK FORWARD SURGE CURRENT

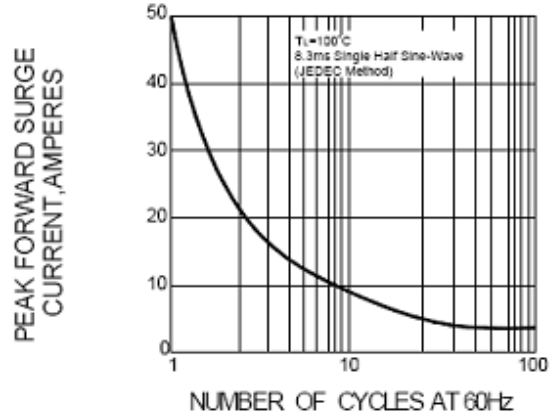


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

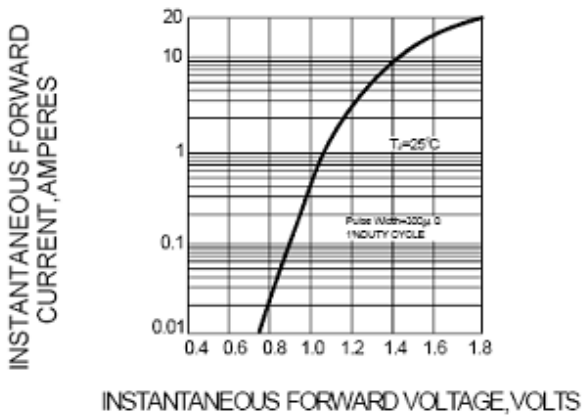


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

