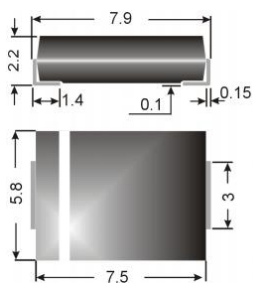


S5A ... S5M



Surface mount diode

Standard silicon rectifier diodes

S5A...S5M

Forward Current: 5 A

Reverse Voltage: 50 to 1000 V

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

Mechanical Data

- Plastic case SMC / DO-214AB
- Weight approx.: 0,21 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

1) Max. temperature of the terminals $T_T = 100\text{ °C}$

2) $I_F = 5\text{ A}$, $T_J = 25\text{ °C}$

3) $T_A = 25\text{ °C}$

4) Mounted on P.C. board with 60 mm² copper pads at each terminal

| Type | Polarity color band | Repetitive peak reverse voltage V_{RRM} V | Surge peak reverse voltage V_{RSM} V | Maximum forward voltage $T_J = 25\text{ °C}$ $I_F = 5\text{ A}$ $V_F^{(2)}$ V | Maximum reverse recovery time $I_F = -\text{A}$ $I_R = -\text{A}$ $I_{RR} = -\text{A}$ t_{rr} ns |
|------|---------------------|---|--|---|---|
| S5A | - | 50 | 50 | 1,15 | - |
| S5B | - | 100 | 100 | 1,15 | - |
| S5D | - | 200 | 200 | 1,15 | - |
| S5G | - | 400 | 400 | 1,15 | - |
| S5J | - | 600 | 600 | 1,15 | - |
| S5K | - | 800 | 800 | 1,15 | - |
| S5M | - | 1000 | 1000 | 1,15 | - |

Absolute Maximum Ratings

$T_C = 25\text{ °C}$, unless otherwise specified

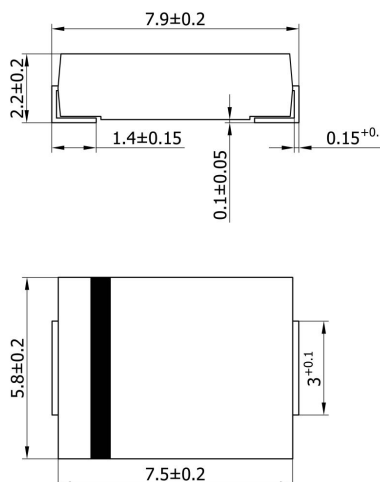
| Symbol | Conditions | Values | Units |
|-----------|---|------------|------------------|
| I_{FAV} | Max. averaged fwd. current, R-load, $T_T = 100\text{ °C}$ | 5 | A |
| I_{FRM} | Repetitive peak forward current $f > 15\text{ Hz}^1)$ | 50 | A |
| I_{FSM} | Peak fwd. surge current 50 Hz half sinus-wave ³⁾ | 225 | A |
| I^2t | Rating for fusing, $t < 10\text{ ms}^3)$ | 300 | A ² s |
| R_{thA} | Max. thermal resistance junction to ambient ⁴⁾ | 50 | K/W |
| R_{thT} | Max. thermal resistance junction to terminals | 15 | K/W |
| T_J | Operating junction temperature | -50...+150 | °C |
| T_s | Storage temperature | -50...+150 | °C |

Characteristics

$T_C = 25\text{ °C}$, unless otherwise specified

| Symbol | Conditions | Values | Units |
|-----------|---|--------|-------|
| I_R | Maximum leakage current, $T_J = 25\text{ °C}$; $V_R = V_{RRM}$ | 10 | μA |
| | $T_J = 125\text{ °C}$; $V_R = V_{RRM}$ | 250 | μA |
| C_J | Typical junction capacitance (at MHz and applied reverse voltage of V) | - | pF |
| Q_{rr} | Reverse recovery charge ($U_R = V$; $I_F = A$; $dI_F/dt = A/ms$) | - | μC |
| E_{RSM} | Non repetitive peak reverse avalanche energy ($I_R = mA$; $T_J = \text{°C}$; inductive load switched off) | - | mJ |

Dimensions in mm



case: SMC / DO-214AB

