

S2 T ... S2 Y



Surface mount diode

Standard silicon rectifier diodes

S2 T ... S2 Y

Forward Current: 2 A

Reverse Voltage: 1300 to 2000 V

Features

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

Mechanical Data

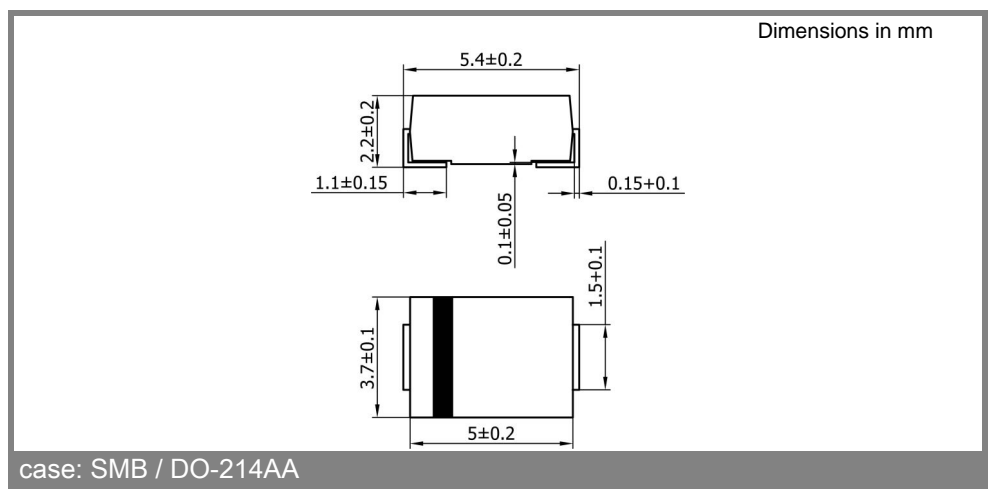
- Plastic case: SMB / DO-214AA
- Weight approx.: 0,1 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

- 1) Max. temperature of the terminals $T_T = 100\text{ °C}$
- 2) $I_F = 2\text{ A}$, $T_J = 25\text{ °C}$
- 3) $T_A = 25\text{ °C}$
- 4) Mounted on P.C. board with 50 mm² copper pads at each terminal

| Type | Polarity color band | Repetitive peak reverse voltage | Surge peak reverse voltage | Maximum forward voltage $T_j = 25\text{ °C}$ $I_F = 2\text{ A}$ | Maximum reverse recovery time $I_F = -\text{A}$ $I_R = -\text{A}$ $I_{RR} = -\text{A}$ t_{rr} ns |
|------|---------------------|---------------------------------|----------------------------|---|---|
| | | V_{RRM} V | V_{RSM} V | $V_F^{(2)}$ V | |
| S2 T | - | 1300 | 1300 | 1,15 | - |
| S2 W | - | 1600 | 1600 | 1,15 | - |
| S2 X | - | 1800 | 1800 | 1,15 | - |
| S2 Y | - | 2000 | 2000 | 1,15 | - |

| Absolute Maximum Ratings | | $T_A = 25\text{ °C}$, unless otherwise specified | |
|--------------------------|---|---|------------------|
| Symbol | Conditions | Values | Units |
| I_{FAV} | Max. averaged fwd. current, R-load, $T_T = 100\text{ °C}$ ¹⁾ | 2 | A |
| I_{FRM} | Repetitive peak forward current $f > 15\text{ Hz}$ ¹⁾ | 10 | A |
| I_{FSM} | Peak fwd. surge current 50 Hz half sinus-wave ³⁾ | 50 | A |
| I^2t | Rating for fusing, $t < 10\text{ ms}$ ³⁾ | 12,5 | A ² s |
| R_{thA} | Max. thermal resistance junction to ambient ⁴⁾ | 60 | 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 | | $T_A = 25\text{ °C}$, unless otherwise specified | |
|-----------------|--|---|--------------------------------|
| Symbol | Conditions | Values | Units |
| I_R | Maximum leakage current, $T_j = 25\text{ °C}$; $V_R = V_{RRM}$ $T_j = 100\text{ °C}$; $V_R = V_{RRM}$ | <5 <100 | μA 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 ($L = \text{mH}$; $T_j = \text{°C}$; inductive load switched off) | - | mJ |



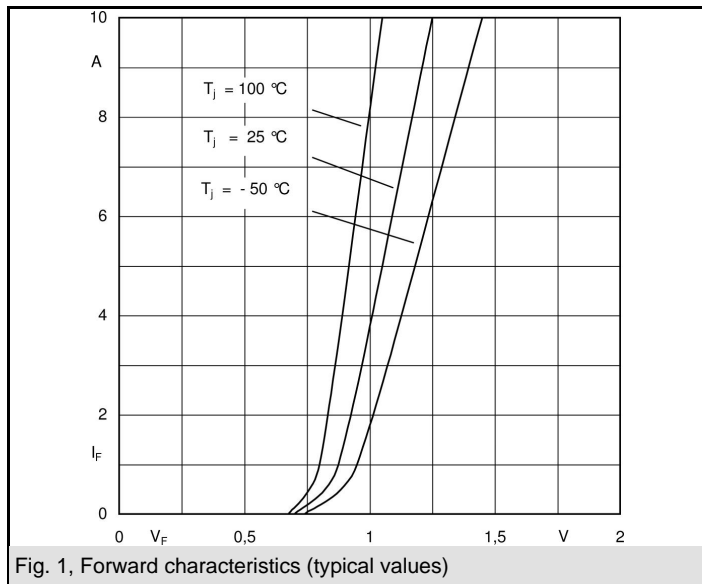


Fig. 1, Forward characteristics (typical values)

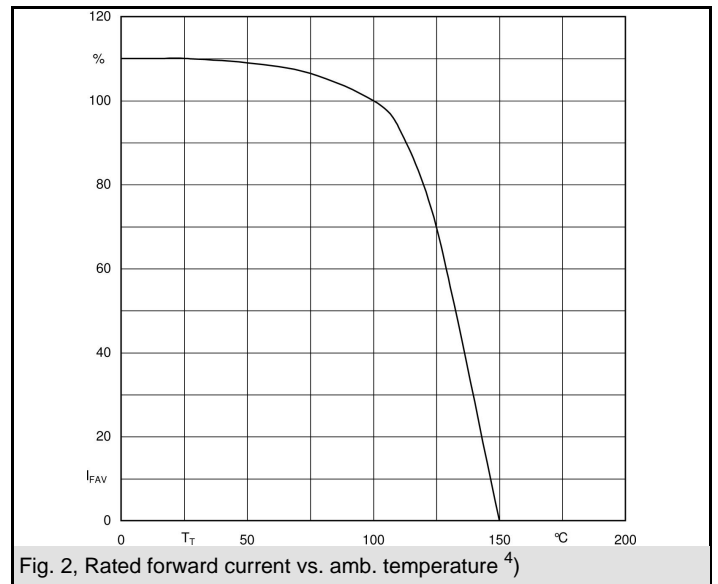


Fig. 2, Rated forward current vs. amb. temperature ⁴⁾