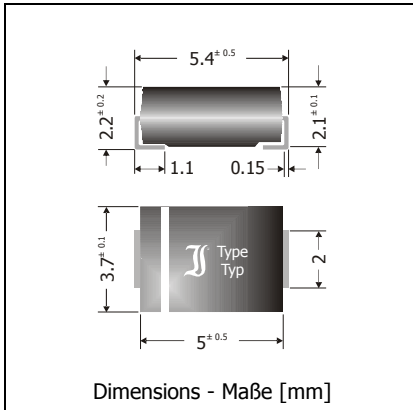


FR2A ... FR2M

Fast Switching Surface Mount Silicon Rectifier Diodes Schnelle Silizium-Gleichrichterdioden für die Oberflächenmontage

Version 2010-12-06



| | |
|---|---------------------|
| Nominal current – Nennstrom | 2 A |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 50...1000 V |
| Plastic case Kunststoffgehäuse | ~ SMB ~ DO-214AA |
| Weight approx. – Gewicht ca. | 0.1 g |
| Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert | |
| Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle | |



Maximum ratings

Grenzwerte

| Type Typ | Rep. peak reverse voltage Period. Spitzensperrspannung V_{RRM} [V] | Surge peak reverse voltage Stoßspitzensperrspannung V_{RSM} [V] | Reverse recovery time Sperrverzugszeit t_{rr} [ns] ¹⁾ |
|-------------|--|---|--|
| FR2A | 50 | 50 | < 150 |
| FR2B | 100 | 100 | < 150 |
| FR2D | 200 | 200 | < 150 |
| FR2G | 400 | 400 | < 150 |
| FR2J | 600 | 600 | < 250 |
| FR2K | 800 | 800 | < 500 |
| FR2M | 1000 | 1000 | < 500 |

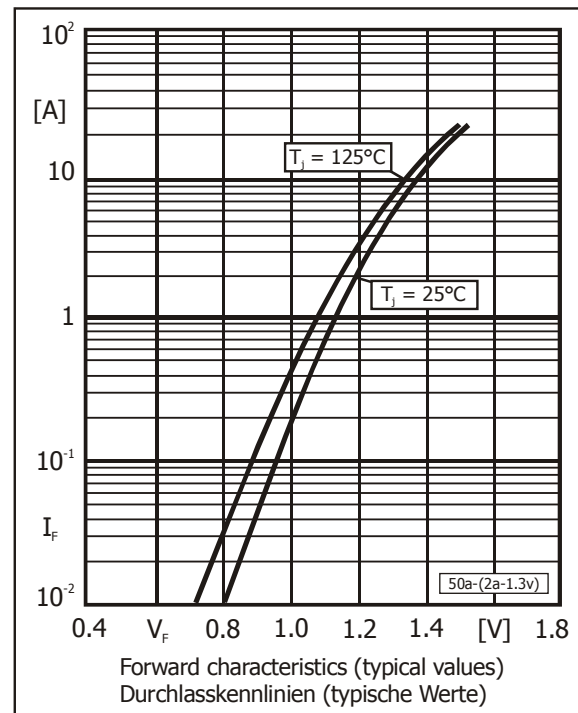
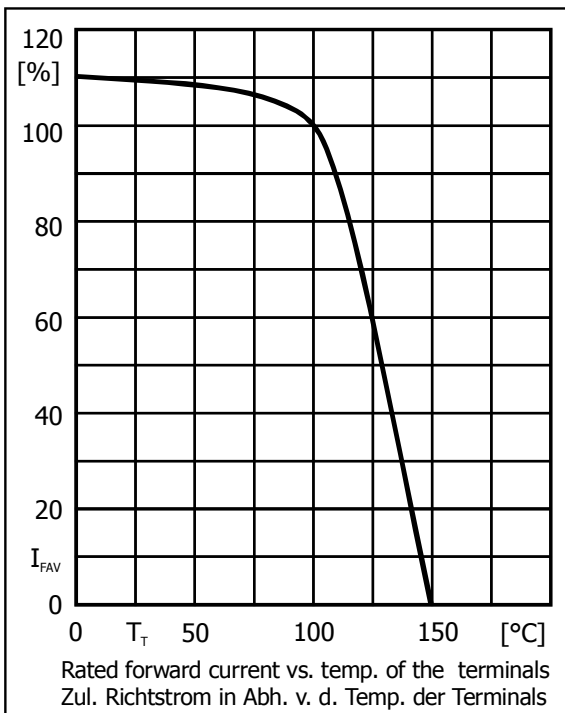
| | | | |
|---|---------------------------|-----------|-----------------------|
| Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last | $T_T = 100^\circ\text{C}$ | I_{FAV} | 2 A |
| Repetitive peak forward current Periodischer Spitzenstrom | $f > 15$ Hz | I_{FRM} | 10 A ²⁾ |
| Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwellen | $T_A = 25^\circ\text{C}$ | I_{FSM} | 50/55 A |
| Rating for fusing, $t < 10$ ms Grenzlastintegral, $t < 10$ ms | $T_A = 25^\circ\text{C}$ | i^2t | 12.5 A ² s |
| Junction temperature – Sperrschichttemperatur | | T_j | -50...+150°C |
| Storage temperature – Lagerungstemperatur | | T_s | -50...+150°C |

1 $I_F = 0.5$ A through/über $I_R = 1$ A to/auf $I_R = 0.25$ A

2 Max. temperature of the terminals $T_T = 100^\circ\text{C}$ – Max. Temperatur der Anschlüsse $T_T = 100^\circ\text{C}$

Characteristics
Kennwerte

| | | | | |
|---|---------------------------|--------------------|-----------|------------------------|
| Forward voltage Durchlass-Spannung | $T_j = 25^\circ\text{C}$ | $I_F = 2\text{ A}$ | V_F | < 1.3 V |
| Leakage current Sperrstrom | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 5 μA |
| | $T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 200 μA |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | | R_{thA} | < 50 K/W ¹⁾ |
| Thermal resistance junction to terminal Wärmewiderstand Sperrschicht – Anschluss | | | R_{thT} | < 15 K/W |



1 Mounted on P.C. board with 50 mm² copper pads at each terminal
Montage auf Leiterplatte mit 50 mm² Kupferbelag (Löt-pad) an jedem Anschluss