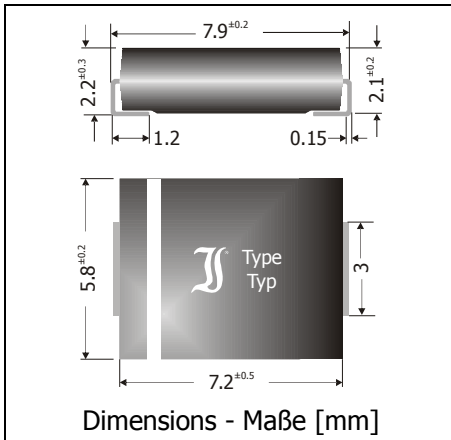



S3D-Q ... S3M-Q

Surface Mount Silicon Rectifier Diodes (AEC-Q101) Silizium-Gleichrichterdioden für die Oberflächenmontage (AEC-Q101)

Version 2014-09-09



| | |
|---|---|
| Nominal current Nennstrom | 3 A |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 200...1000 V |
| Plastic case Kunststoffgehäuse | ~ SMC ~ DO-214AB |
| Weight approx. – Gewicht ca. | 0.21 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 | Repetitive peak reverse voltage Periodische Spitzensperrspannung V_{RRM} [V] | Surge peak reverse voltage Stoßspitzensperrspannung V_{RSM} [V] |
|-------------|--|---|
| S3D-Q | 200 | 200 |
| S3G-Q | 400 | 400 |
| S3J-Q | 600 | 600 |
| S3K-Q | 800 | 800 |
| S3M-Q | 1000 | 1000 |

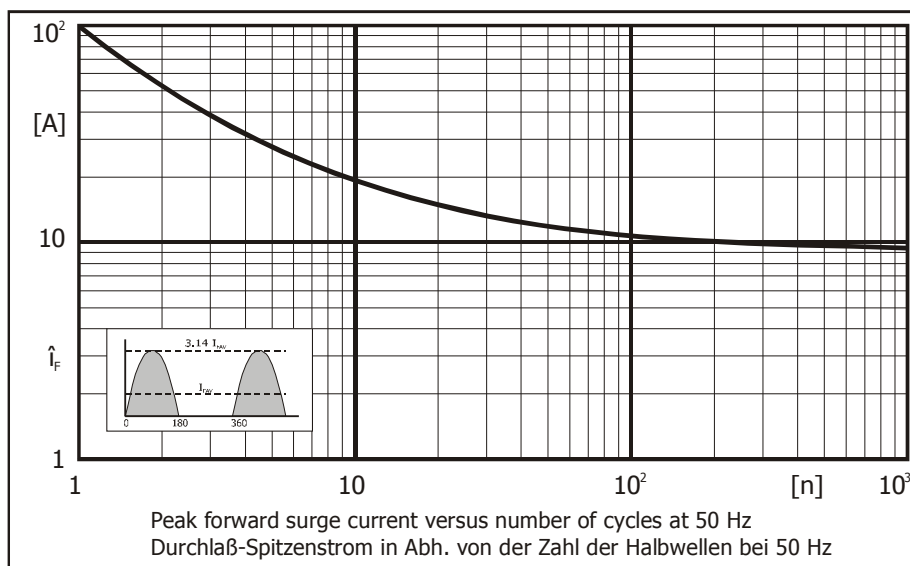
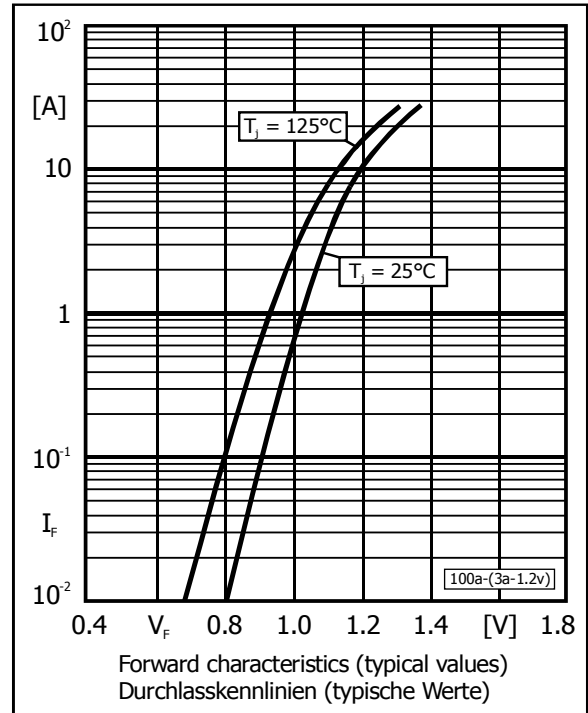
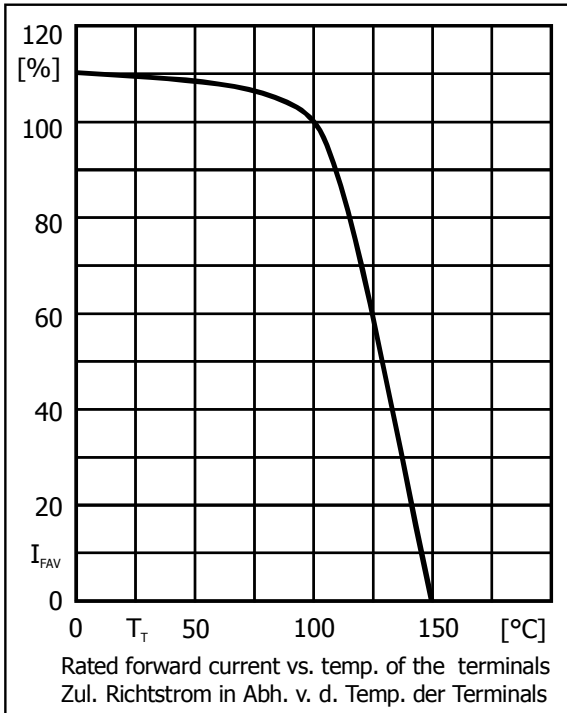
| | | | |
|---|---------------------------|----------------|------------------------------|
| Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last | $T_T = 100^\circ\text{C}$ | I_{FAV} | 3 A |
| Repetitive peak forward current Periodischer Spitzenstrom | $f > 15$ Hz | I_{FRM} | 20 A ¹⁾ |
| 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} | 100/110 A |
| Rating for fusing – Grenzlastintegral, $t < 10$ ms | $T_A = 25^\circ\text{C}$ | i^2t | 50 A ² s |
| Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur | | T_j T_s | -50...+150°C -50...+150°C |

1 Mounted on P.C. board with 60 mm² copper pads at each terminal
Montage auf Leiterplatte mit 60 mm² Kupferbelag (Löt-pad) an jedem Anschluss

Characteristics

Kennwerte

| | | | | | |
|---|---------------------------|--------------------|-------|---------------------|------------------------|
| Forward voltage – Durchlass-Spannung | $T_j = 25^\circ\text{C}$ | $I_F = 3\text{ A}$ | V_F | < 1.15 V | |
| Leakage current Sperrstrom | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 1 μA | |
| | $T_j = 125^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 200 μA | |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | | | R_{thA} | < 36 K/W ¹⁾ |
| Thermal resistance junction to terminal Wärmewiderstand Sperrschicht – Anschluss | | | | R_{thT} | < 10 K/W |



1 Mounted on P.C. board with 60 mm² copper pads at each terminals
Montage auf Leiterplatte mit 60 mm² Kupferbelag (Lötpad) an jedem Anschluss