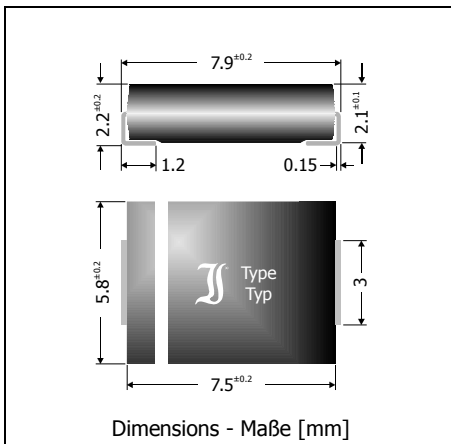


S3A ... S3Y

Surface Mount Silicon Rectifier Diodes Silizium-Gleichrichterioden für die Oberflächenmontage

Version 2005-06-21



| | |
|---------------------------------------------------------------------------------------|---------------------|
| Nominal current Nennstrom | 3 A |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 50...2000 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] |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| S3A | 50 | 50 |
| S3B | 100 | 100 |
| S3D | 200 | 200 |
| S3G | 400 | 400 |
| S3J | 600 | 600 |
| S3K | 800 | 800 |
| S3M | 1000 | 1000 |
| S3T | 1300 | 1300 |
| S3W | 1600 | 1600 |
| S3X | 1800 | 1800 |
| S3Y | 2000 | 2000 |

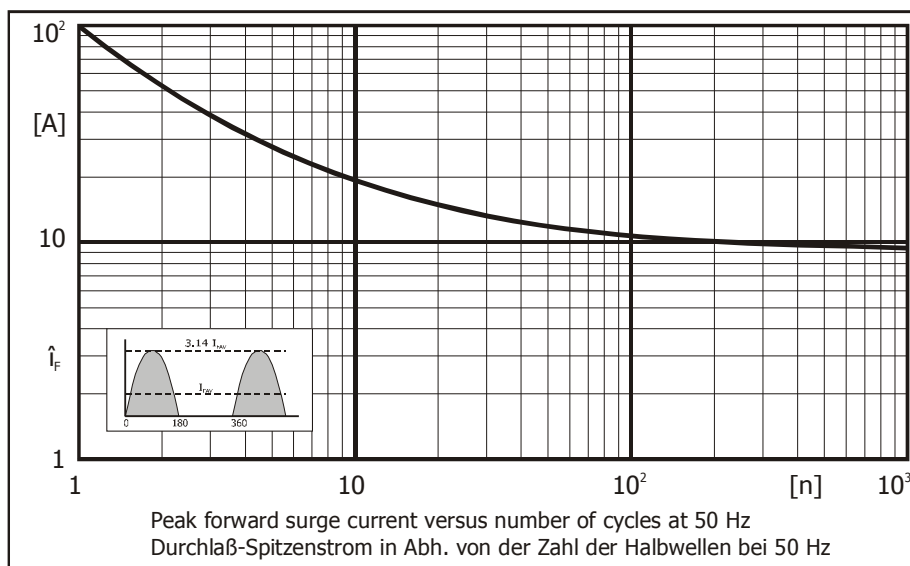
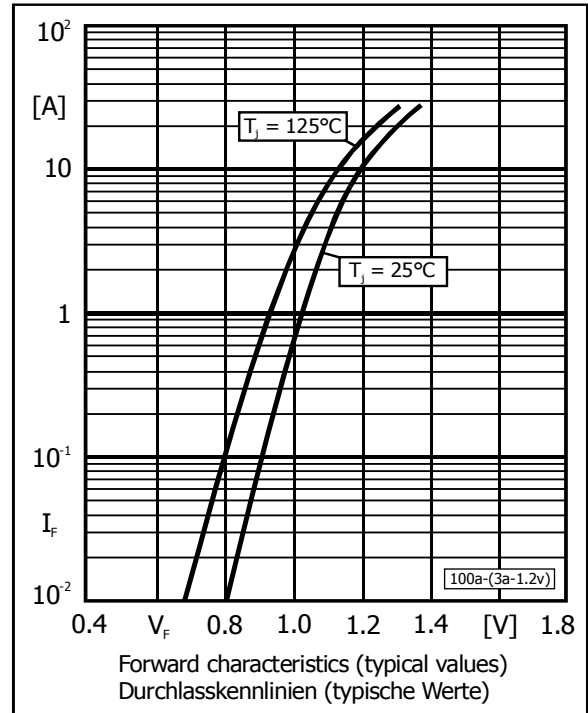
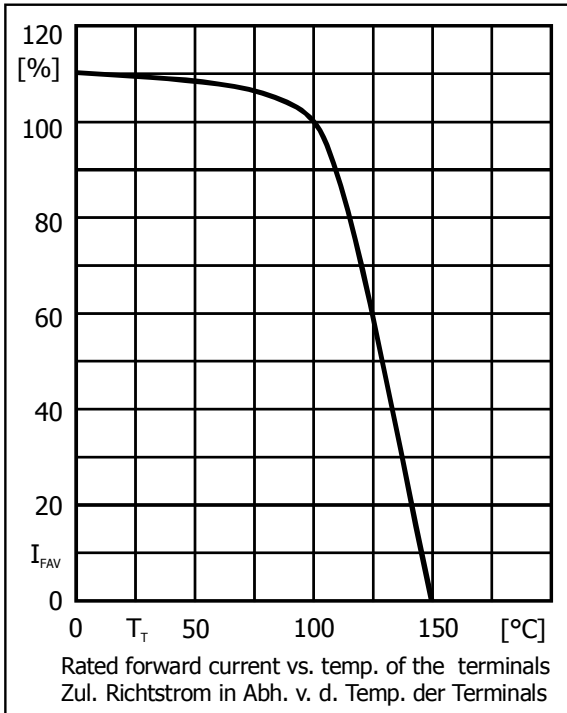
| | | | |
|-----------------------------------------------------------------------------------------------------|---------------------------|----------------|------------------------------|
| Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last | $T_T = 100^\circ\text{C}$ | I_{FAV} | 3 A |
| Repetitive peak forward current Periodischer Spitzenstrom | $f > 15\text{ Hz}$ | 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, $t < 10\text{ ms}$ | $T_A = 25^\circ\text{C}$ | 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 | $< 1.15\text{ V}$ |
| Leakage current Sperrstrom | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | $< 5\ \mu\text{A}$ |
| | $T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | $< 200\ \mu\text{A}$ |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | | | $R_{thA} < 36\text{ K/W}^1)$ |
| Thermal resistance junction to terminal Wärmewiderstand Sperrschicht – Anschluss | | | | $R_{thT} < 10\text{ K/W}$ |



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