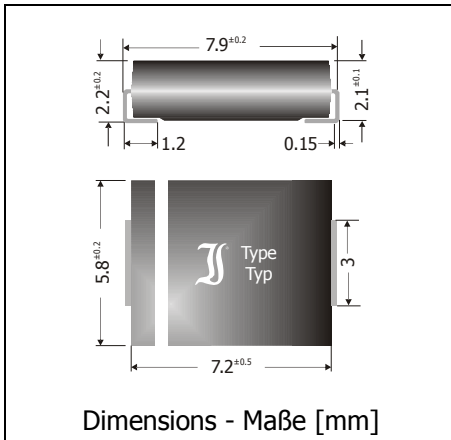


## S3A ... S3Y

### Surface Mount Silicon Rectifier Diodes Silizium-Gleichrichterioden für die Oberflächenmontage

Version 2012-04-04



|   |                     |
|---|---------------------|
| Nominal current<br>Nennstrom  | 3 A                 |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung                   | 50...2000 V         |
| Plastic case<br>Kunststoffgehäuse   | ~ SMC<br>~ DO-214AB |
| Weight approx. – Gewicht ca.  | 0.21 g              |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                     |
| Standard packaging taped and reeled<br>Standard Lieferform gegurtet auf Rolle         |                     |



#### Maximum ratings

#### Grenzwerte

| Type<br>Typ | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [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  |

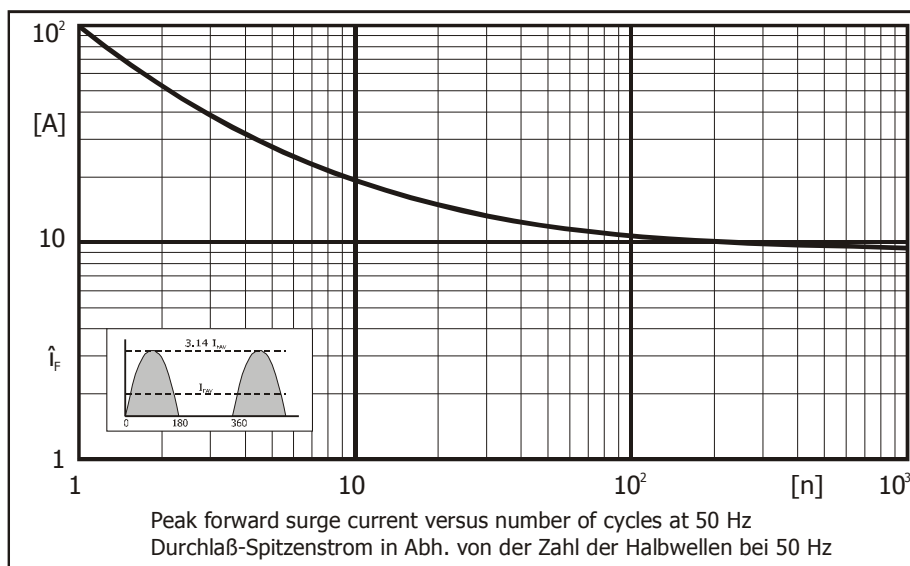
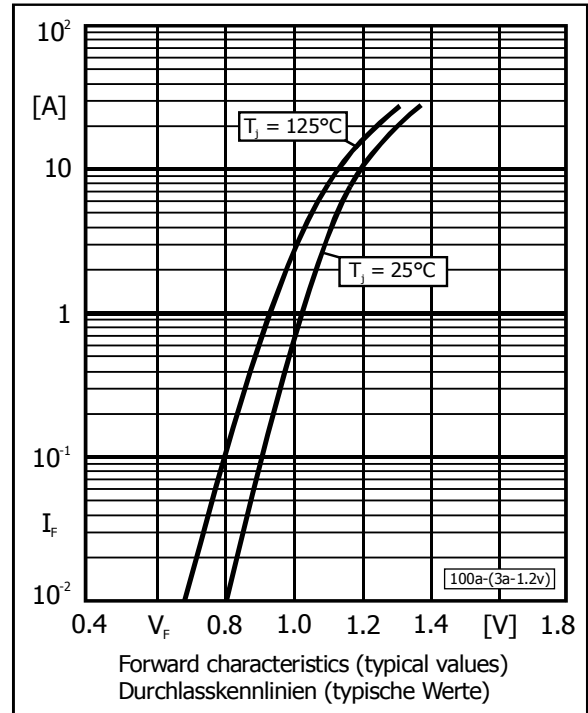
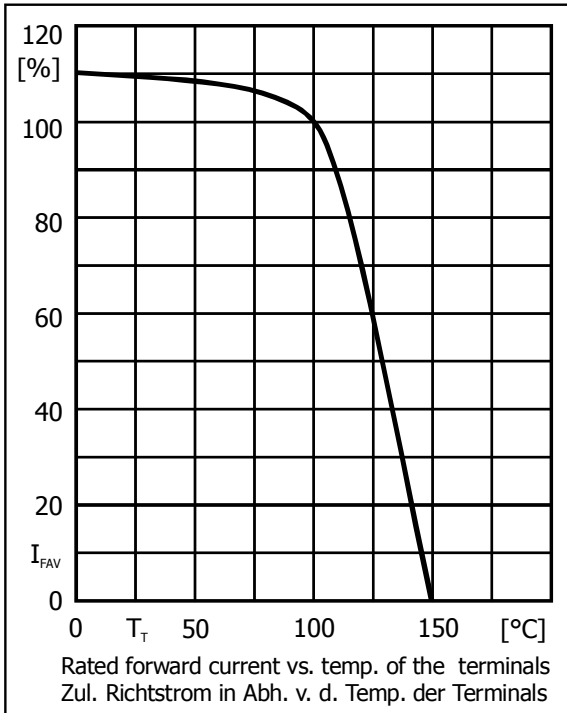
|   |                           |                |                              |
|---|---------------------------|----------------|------------------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last     | $T_T = 100^\circ\text{C}$ | $I_{FAV}$      | 3 A                          |
| Repetitive peak forward current<br>Periodischer Spitzenstrom  | $f > 15\text{ Hz}$        | $I_{FRM}$      | 20 A <sup>1)</sup>           |
| Peak forward surge current, 50/60 Hz half sine-wave<br>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 <sup>2</sup> s          |
| Junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur          |                           | $T_j$<br>$T_s$ | -50...+150°C<br>-50...+150°C |

1 Mounted on P.C. board with 60 mm<sup>2</sup> copper pads at each terminal  
Montage auf Leiterplatte mit 60 mm<sup>2</sup> 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<br>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<br>Wärmewiderstand Sperrschicht – umgebende Luft |                           |                    |       | $R_{thA}$           | < 36 K/W <sup>1)</sup> |
| Thermal resistance junction to terminal<br>Wärmewiderstand Sperrschicht – Anschluss         |                           |                    |       | $R_{thT}$           | < 10 K/W               |



1 Mounted on P.C. board with 60 mm<sup>2</sup> copper pads at each terminals  
Montage auf Leiterplatte mit 60 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss