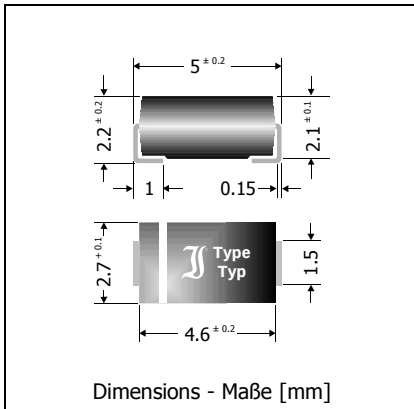


## S1A ... S1Y

### Surface Mount Si-Rectifiers Si-Gleichrichter für die Oberflächenmontage

Version 2005-06-21



Nominal current – Nennstrom

1 A

 Repetitive peak reverse voltage  
 Periodische Spitzensperrspannung

50...2000 V

 Plastic case  
 Kunststoffgehäuse

 ~ SMA  
 ~ DO-214AC

Weight approx. – Gewicht ca.

0.07 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

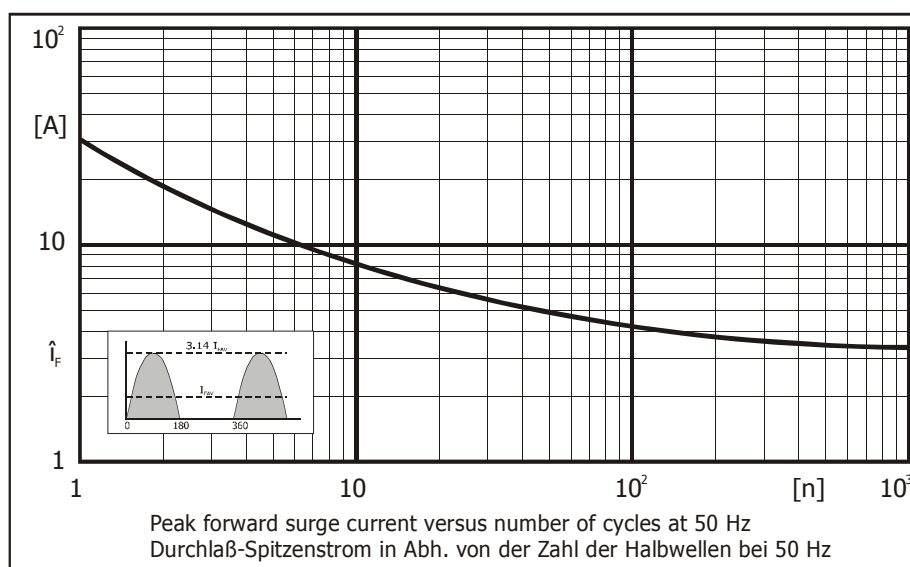
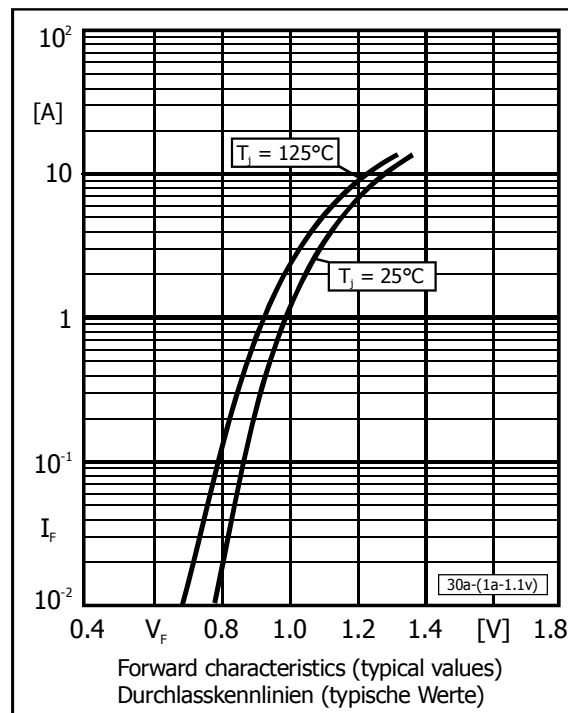
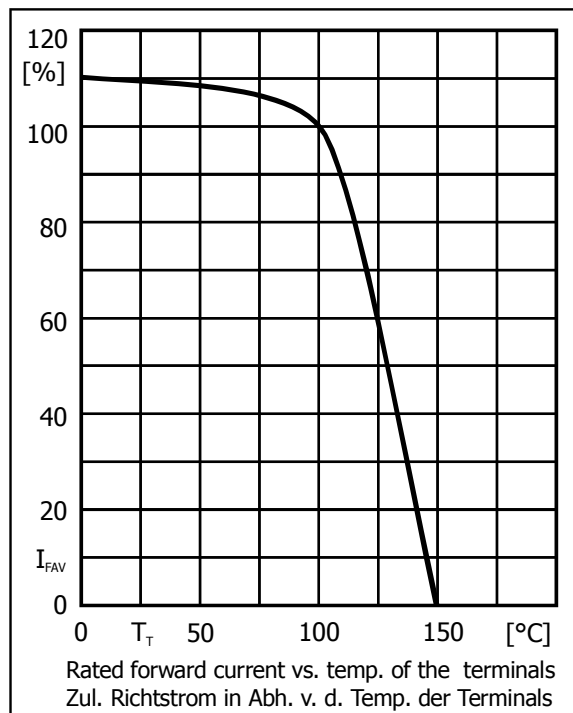
| Type<br>Typ | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [V] |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| S1A         | 50                                                                                   | 50                                                                      |
| S1B         | 100                                                                                  | 100                                                                     |
| S1D         | 200                                                                                  | 200                                                                     |
| S1G         | 400                                                                                  | 400                                                                     |
| S1J         | 600                                                                                  | 600                                                                     |
| S1K         | 800                                                                                  | 800                                                                     |
| S1M         | 1000                                                                                 | 1000                                                                    |
| S1T         | 1300                                                                                 | 1300                                                                    |
| S1W         | 1600                                                                                 | 1600                                                                    |
| S1X         | 1800                                                                                 | 1800                                                                    |
| S1Y         | 2000                                                                                 | 2000                                                                    |

|                                                                                                     |                           |                |                              |
|-----------------------------------------------------------------------------------------------------|---------------------------|----------------|------------------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last     | $T_T = 100^\circ\text{C}$ | $I_{FAV}$      | 1 A                          |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                        | $f > 15\text{ Hz}$        | $I_{FRM}$      | 6 A <sup>1)</sup>            |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwellen | $T_A = 25^\circ\text{C}$  | $I_{FSM}$      | 30/32 A                      |
| Rating for fusing, $t < 10\text{ ms}$<br>Grenzlastintegral, $t < 10\text{ ms}$                      | $T_A = 25^\circ\text{C}$  | $i^2t$         | 4.5 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 25 mm<sup>2</sup> copper pads at each terminal  
 Montage auf Leiterplatte mit 25 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss

**Characteristics**
**Kennwerte**

|                                                                                             |                                                       |                                    |                |                                                       |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------|----------------|-------------------------------------------------------|
| Forward voltage – Durchlass-Spannung                                                        | $T_j = 25^\circ\text{C}$                              | $I_F = 1\text{ A}$                 | $V_F$          | $< 1.1\text{ V}$                                      |
| Leakage current<br>Sperrstrom                                                               | $T_j = 25^\circ\text{C}$<br>$T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$<br>$V_R = V_{RRM}$ | $I_R$<br>$I_R$ | $< 5\text{ }\mu\text{A}$<br>$< 50\text{ }\mu\text{A}$ |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |                                                       |                                    |                | $R_{thA}$<br>$< 70\text{ K/W}^1)$                     |
| Thermal resistance junction to terminal<br>Wärmewiderstand Sperrschicht – Anschluss         |                                                       |                                    |                | $R_{thT}$<br>$< 30\text{ K/W}$                        |



1 Mounted on P.C. board with 25 mm<sup>2</sup> copper pads at each terminal  
Montage auf Leiterplatte mit 25 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss