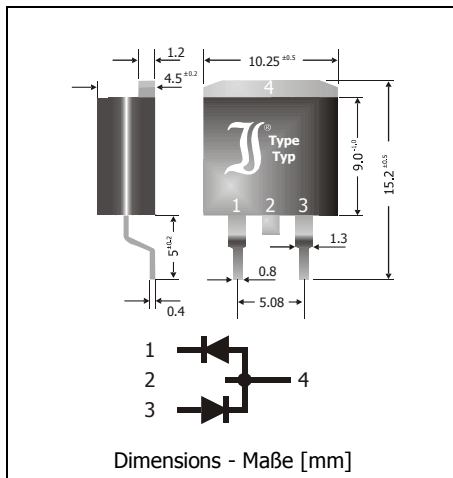


**S16ASD2 ... S16MSD2**
**Surface Mount Silicon Rectifier Diodes – Half Bridge**  
**Silizium-Gleichrichterdioden für die Oberflächenmontage– Halbbrücke**

Version 2012-10-09



|                                                                                       |                                |
|---------------------------------------------------------------------------------------|--------------------------------|
| Nominal current<br>Nennstrom                                                          | 16 A                           |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung                   | 50...1000 V                    |
| Plastic case<br>Kunststoffgehäuse                                                     | TO-263AB<br>D <sup>2</sup> PAK |
| Weight approx.<br>Gewicht ca.                                                         | 1.6 g                          |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                                |
| Standard packaging in tubes<br>Standard Lieferform in Stangen                         |                                |

**Maximum ratings and Characteristics****Grenz- und Kennwerte**

| Type<br>Typ | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] <sup>1)</sup> | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [V] <sup>1)</sup> | Forward voltage<br>Durchlass-Spannung<br>$V_F$ [V] <sup>1)</sup> , $T_j = 25^\circ\text{C}$ |                    |
|-------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------|
|             |                                                                                                    |                                                                                       | $I_F = 5\text{ A}$                                                                          | $I_F = 8\text{ A}$ |
| S16ASD2     | 50                                                                                                 | 50                                                                                    | < 1.0                                                                                       | < 1.1              |
| S16BSD2     | 100                                                                                                | 100                                                                                   | < 1.0                                                                                       | < 1.1              |
| S16DSD2     | 200                                                                                                | 200                                                                                   | < 1.0                                                                                       | < 1.1              |
| S16GSD2     | 400                                                                                                | 400                                                                                   | < 1.0                                                                                       | < 1.1              |
| S16JSD2     | 600                                                                                                | 600                                                                                   | < 1.0                                                                                       | < 1.1              |
| S16KSD2     | 800                                                                                                | 800                                                                                   | < 1.0                                                                                       | < 1.1              |
| S16MSD2     | 1000                                                                                               | 1000                                                                                  | < 1.0                                                                                       | < 1.1              |

|                                                                                                     |                                                        |                        |                                         |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------|-----------------------------------------|
| Max. average forward current, R-load<br>Dauergrenzstrom mit R-Last                                  | $T_C = 100^\circ\text{C}$<br>$T_C = 100^\circ\text{C}$ | $I_{FAV}$<br>$I_{FAV}$ | 8 A <sup>1)</sup><br>16 A <sup>2)</sup> |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                        | $f > 15\text{ Hz}$                                     | $I_{FRM}$              | 30 A <sup>3)</sup>                      |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwellen | $T_A = 25^\circ\text{C}$                               | $I_{FSM}$              | 135/150 A <sup>1)</sup>                 |
| Rating for fusing, $t < 10\text{ ms}$<br>Grenzlastintegral, $t < 10\text{ ms}$                      | $T_A = 25^\circ\text{C}$                               | $i^2t$                 | 90 A <sup>2</sup> s <sup>1)</sup>       |
| Junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur          |                                                        | $T_j$<br>$T_s$         | -50...+150°C<br>-50...+175°C            |

1 Per diode – Pro Diode

2 Output current when operating two devices in a full bridge configuration  
Ausgangsstrom bei Betrieb zweier Bauteile als Vollbrücke3 Max. temperature of the case  $T_C = 100^\circ\text{C}$  – Max. Temperatur des Gehäuses  $T_C = 100^\circ\text{C}$

**Characteristics**
**Kennwerte**

|                                                                               |                                          |           |                        |
|-------------------------------------------------------------------------------|------------------------------------------|-----------|------------------------|
| Leakage current<br>Sperrstrom                                                 | $T_j = 25^\circ\text{C}$ $V_R = V_{RRM}$ | $I_R$     | $< 5 \mu\text{A}$      |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse |                                          | $R_{thC}$ | $< 2.5 \text{ K/W}^1)$ |

