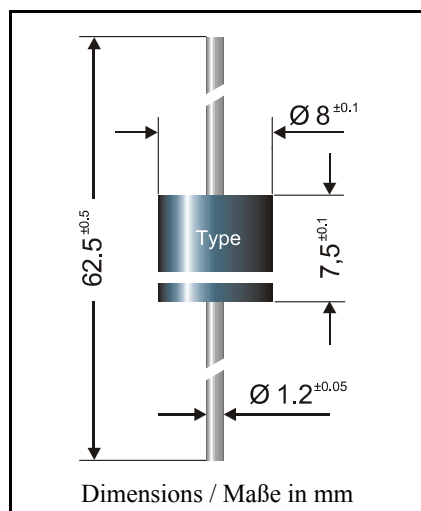


# Super Fast Silicon Rectifiers

# Superschnelle Silizium Gleichrichter



|                                                                                       |                               |
|---------------------------------------------------------------------------------------|-------------------------------|
| Nominal current – Nennstrom                                                           | 6 A                           |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung                   | 50...400 V                    |
| Plastic case<br>Kunststoffgehäuse                                                     | Ø 8 x 7.5 [mm]<br>P-600 Style |
| Weight approx. – Gewicht ca.                                                          | 1.5 g                         |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                               |
| Standard packaging taped in ammo pack<br>Standard Lieferform gegurtet in Ammo-Pack    | see page 16<br>siehe Seite 16 |

## 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] |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| FE 6A       | 50                                                                                   | 50                                                                      |
| FE 6B       | 100                                                                                  | 100                                                                     |
| FE 6D       | 200                                                                                  | 200                                                                     |
| FE 6F       | 300                                                                                  | 300                                                                     |
| FE 6G       | 400                                                                                  | 400                                                                     |

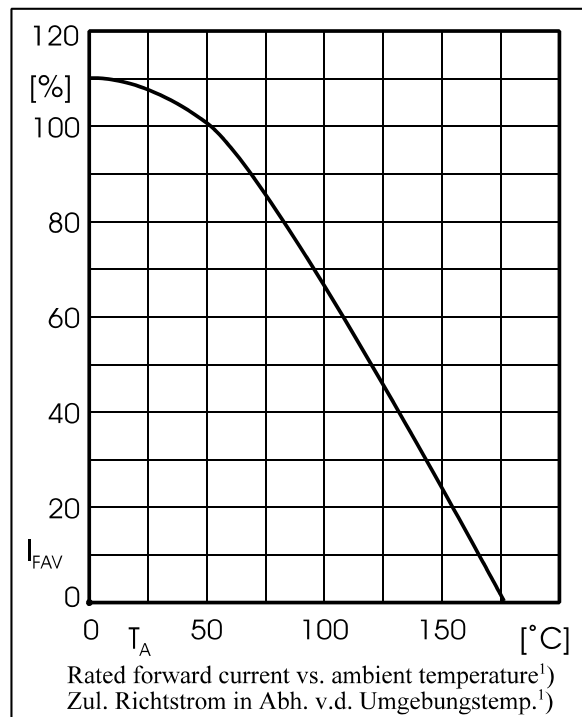
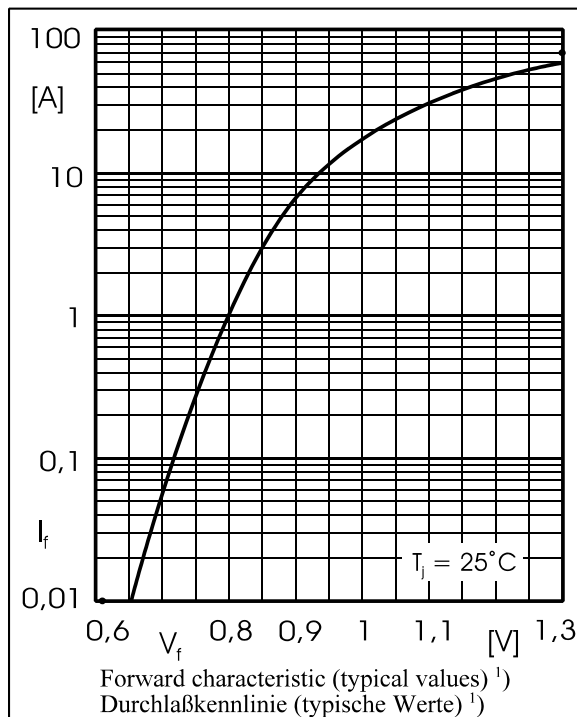
|                                                                                                      |                          |                |                                |
|------------------------------------------------------------------------------------------------------|--------------------------|----------------|--------------------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last      | $T_A = 50^\circ\text{C}$ | $I_{FAV}$      | 6 A <sup>1)</sup>              |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                         | $f > 15\text{ Hz}$       | $I_{FRM}$      | 50 A <sup>1)</sup>             |
| Peak forward surge current, 50 Hz half sine-wave<br>Stoßstrom für eine 50 Hz Sinus-Halbwellen        | $T_A = 25^\circ\text{C}$ | $I_{FSM}$      | 200 A                          |
| Rating for fusing, $t < 10\text{ ms}$<br>Grenzlastintegral, $t < 10\text{ ms}$                       | $T_A = 25^\circ\text{C}$ | $i^2t$         | 200 A <sup>2</sup> s           |
| Operating junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur |                          | $T_j$<br>$T_s$ | – 50...+175°C<br>– 50...+175°C |

<sup>1)</sup> Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

Gültig, wenn die Anschlußdrähte in 10 mm Abstand von Gehäuse auf Umgebungstemperatur gehalten werden

**Characteristics****Kennwerte**

|                                                                                             |                                                                                      |                    |           |                          |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------|-----------|--------------------------|
| Forward voltage – Durchlaßspannung                                                          | $T_j = 25^\circ\text{C}$                                                             | $I_F = 5\text{ A}$ | $V_F$     | $< 0.95\text{ V}$        |
| Leakage current – Sperrstrom                                                                | $T_j = 25^\circ\text{C}$                                                             | $V_R = V_{RRM}$    | $I_R$     | $< 5\text{ }\mu\text{A}$ |
| Reverse recovery time<br>Sperrverzug                                                        | $I_F = 0.5\text{ A}$ through/über<br>$I_R = 1\text{ A}$ to/auf $I_R = 0.25\text{ A}$ |                    | $t_{rr}$  | $< 50\text{ ns}$         |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |                                                                                      |                    | $R_{thA}$ | $< 20\text{ K/W}^1)$     |



<sup>1)</sup> Valid, if leads are kept at ambient temperature at a distance of 10 mm from case  
Gültig, wenn die Anschlußdrähte in 10 mm Abstand von Gehäuse auf Umgebungstemperatur gehalten werden