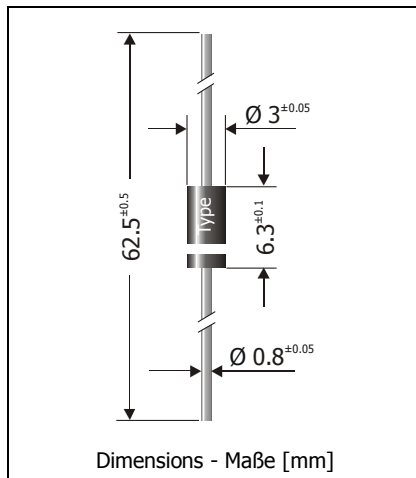


# 1N5817 ... 1N5819

## Schottky Barrier Rectifier Diodes

## Schottky-Barrier-Gleichrichterdioden

Version 2006-04-19



|                                                                                       |                   |
|---------------------------------------------------------------------------------------|-------------------|
| Nominal current<br>Nennstrom                                                          | 1 A               |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung                   | 20...40 V         |
| Plastic case<br>Kunststoffgehäuse                                                     | DO-15<br>DO-204AC |
| Weight approx.<br>Gewicht ca.                                                         | 0.4 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    |                   |

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

| Type<br>Typ | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [V] | Forward voltage<br>Durchlass-Spannung<br>$V_F$ [V] <sup>1)</sup> |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------|
| 1N5817      | 20                                                                                   | 20                                                                      | < 0.75                                                           |
| 1N5818      | 30                                                                                   | 30                                                                      | < 0.875                                                          |
| 1N5819      | 40                                                                                   | 40                                                                      | < 0.90                                                           |

|                                                                                                 |                          |                |                              |
|-------------------------------------------------------------------------------------------------|--------------------------|----------------|------------------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last | $T_A = 75^\circ\text{C}$ | $I_{FAV}$      | 1 A <sup>2)</sup>            |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                    | $f > 15 \text{ Hz}$      | $I_{FRM}$      | 10 A <sup>2)</sup>           |
| Peak forward surge current, 50 Hz half sine-wave<br>Stoßstrom für eine 50 Hz Sinus-Halbwelle    | $T_A = 25^\circ\text{C}$ | $I_{FSM}$      | 40 A                         |
| Rating for fusing, $t < 10 \text{ ms}$<br>Grenzlastintegral, $t < 10 \text{ ms}$                | $T_A = 25^\circ\text{C}$ | $i^2t$         | 8 A <sup>2</sup> s           |
| Junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur      |                          | $T_j$<br>$T_s$ | -50...+150°C<br>-50...+175°C |

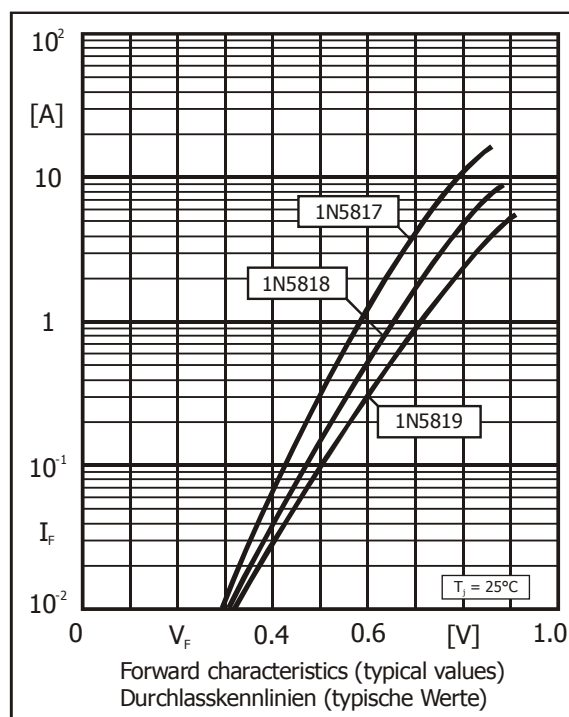
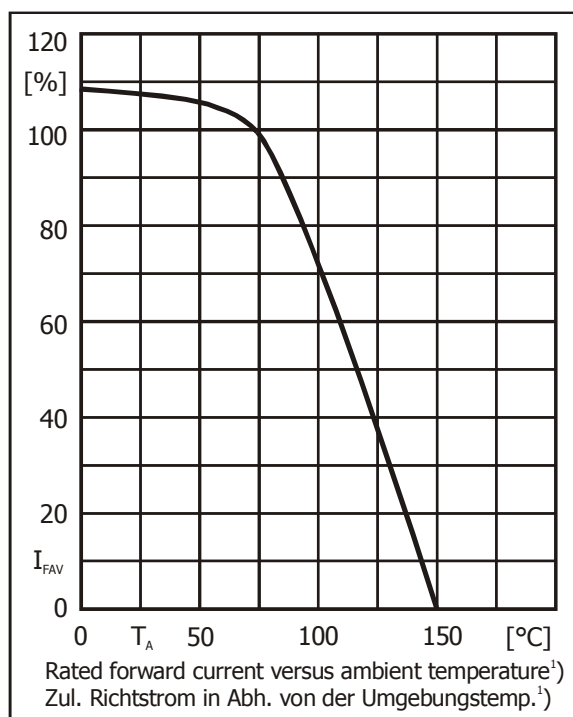
1  $I_F = 3 \text{ A}, T_j = 25^\circ\text{C}$

2 Valid, if leads are kept at ambient temperature at a distance of 10 mm from case  
Gültig, wenn die Anschlussdrähte in 10 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

## Characteristics

## Kennwerte

|                                                                                             |                                                                                       |                |                        |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------|------------------------|
| Leakage current<br>Sperrstrom                                                               | $T_j = 25^\circ\text{C}$ $V_R = V_{RRM}$<br>$T_j = 100^\circ\text{C}$ $V_R = V_{RRM}$ | $I_R$<br>$I_R$ | < 1 mA<br>< 10 mA      |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |                                                                                       | $R_{thA}$      | < 45 K/W <sup>1)</sup> |
| Thermal resistance junction to leads<br>Wärmewiderstand Sperrschicht – Anschlussdraht       |                                                                                       | $R_{thL}$      | < 15 K/W               |



<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 vom Gehäuse auf Umgebungstemperatur gehalten werden