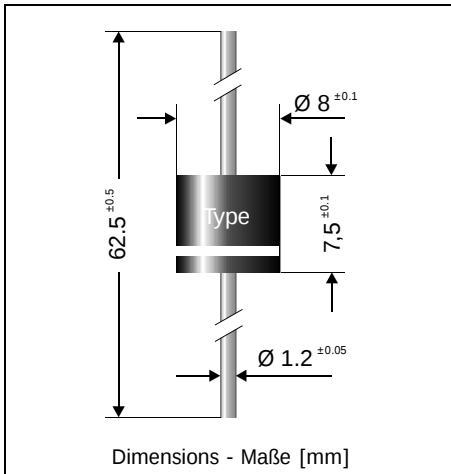


**MR820 ... MR828**  
**Fast Silicon-Rectifiers**  
**Schnelle Silizium-Gleichrichter**

Version 2006-04-26



Nominal Current  
Nennstrom

5 A

Repetitive peak reverse voltage  
Periodische Spitzensperrspannung

50...1000 V

Plastic case  
Kunststoffgehäuse

Ø 8 x 7.5 [mm]  
P600 Style

Weight approx.  
Gewicht ca.

1.3 g

Plastic material has UL classification 94V-0  
Gehäusematerial UL94V-0 klassifiziert

Standard packaging taped in ammo pack  
Standard Lieferform gegurtet in Ammo-Pack

**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] |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| MR820       | 50                                                                                   | 50                                                                      |
| MR821       | 100                                                                                  | 100                                                                     |
| MR822       | 200                                                                                  | 200                                                                     |
| MR824       | 400                                                                                  | 400                                                                     |
| MR826       | 600                                                                                  | 600                                                                     |
| MR828       | 800                                                                                  | 800                                                                     |

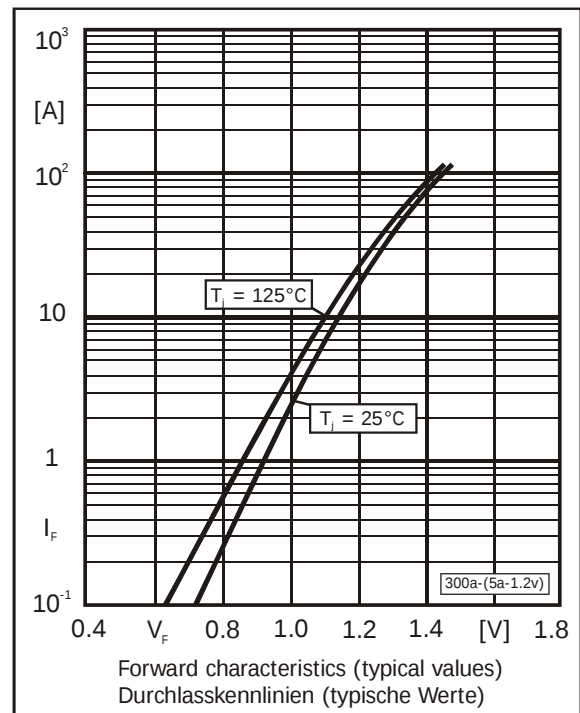
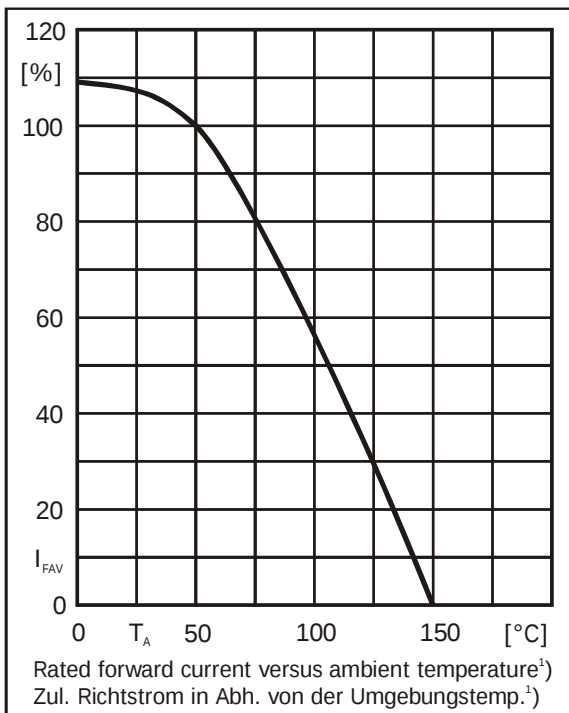
|                                                                                                     |                          |                |                              |
|-----------------------------------------------------------------------------------------------------|--------------------------|----------------|------------------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschtung mit R-Last       | $T_A = 50^\circ\text{C}$ | $I_{FAV}$      | 5 A <sup>1)</sup>            |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                        | $f > 15\text{ Hz}$       | $I_{FRM}$      | 60 A <sup>1)</sup>           |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwellen | $T_A = 25^\circ\text{C}$ | $I_{FSM}$      | 300/330 A                    |
| Rating for fusing, $t < 10\text{ ms}$<br>Grenzlastintegral, $t < 10\text{ ms}$                      | $T_A = 25^\circ\text{C}$ | $i^2t$         | 450 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 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

|                                                                                             |                                                                                  |                    |           |                           |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------|-----------|---------------------------|
| Forward Voltage – Durchlass-Spannung                                                        | $T_j = 25^\circ\text{C}$                                                         | $I_F = 5\text{ A}$ | $V_F$     | $< 1.2\text{ V}$          |
| Leakage current – Sperrstrom                                                                | $T_j = 25^\circ\text{C}$                                                         | $V_R = V_{RRM}$    | $I_R$     | $< 25\text{ }\mu\text{A}$ |
| Reverse recovery time<br>Sperrverzögerung                                                   | $I_F = 0.5\text{ A}$ through/über<br>$I_R = 1\text{ A}$ to $I_R = 0.25\text{ A}$ |                    | $t_{rr}$  | $< 300\text{ ns}$         |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |                                                                                  |                    | $R_{thA}$ | $< 16\text{ K/W}^{1)}$    |
| Thermal resistance junction to leads<br>Wärmewiderstand Sperrschicht – Anschlussdraht       |                                                                                  |                    | $R_{thL}$ | $< 5\text{ K/W}$          |



1 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