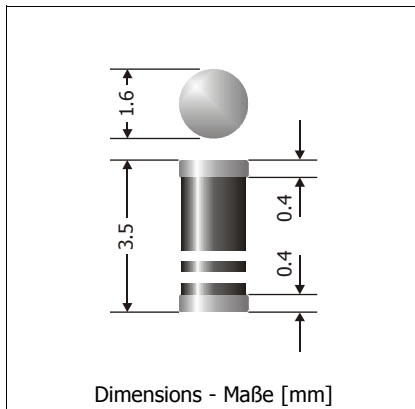


## GL1A ... GL1M

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

Version 2005-08-17



|                                                                                       |             |
|---------------------------------------------------------------------------------------|-------------|
| Nominal current – Nennstrom                                                           | 1 A         |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung                   | 50...1000 V |
| Plastic case MiniMELF<br>Kunststoffgehäuse MiniMELF                                   | DO-213AA    |
| Weight approx. – Gewicht ca.                                                          | 0.04 g      |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |             |
| Standard packaging taped and reeled<br>Standard Lieferform gegurtet auf Rolle         |             |



|                |                                                                                |
|----------------|--------------------------------------------------------------------------------|
| Marking:       | 1. white ring denotes "cathode" and "standard rectifier family"                |
|                | 2. colored ring denotes "repetitive peak reverse voltage" (see below)          |
| Kennzeichnung: | 1. weißer Ring kennzeichnet "Kathode" und "Standard-Gleichrichter"             |
|                | 2. farbiger Ring kennzeichnet "Periodische Spitzensperrspannung" (siehe unten) |

**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] | 2. Cathode ring<br>2. Kathodenring |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------|
| GL1A        | 50                                                                                   | 50                                                                      | gray / grau                        |
| GL1B        | 100                                                                                  | 100                                                                     | red / rot                          |
| GL1D        | 200                                                                                  | 200                                                                     | orange / orange                    |
| GL1G        | 400                                                                                  | 400                                                                     | yellow / gelb                      |
| GL1J        | 600                                                                                  | 600                                                                     | green / grün                       |
| GL1K        | 800                                                                                  | 800                                                                     | blue / blau                        |
| GL1M        | 1000                                                                                 | 1000                                                                    | violet / violett                   |

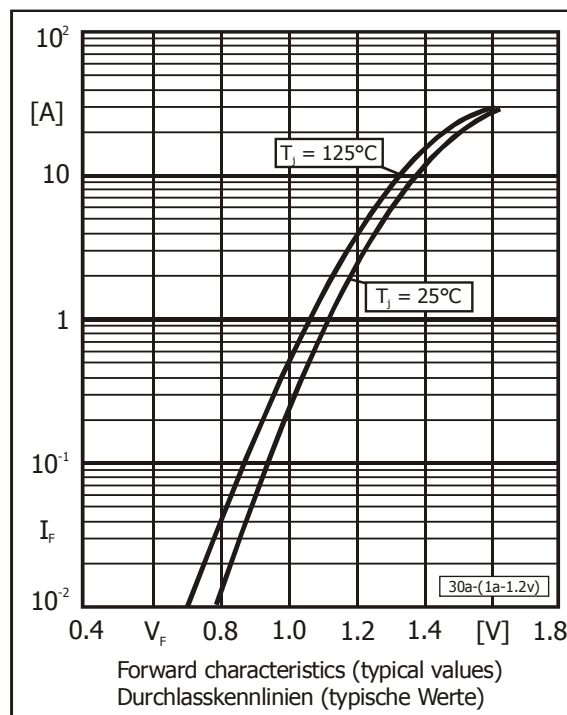
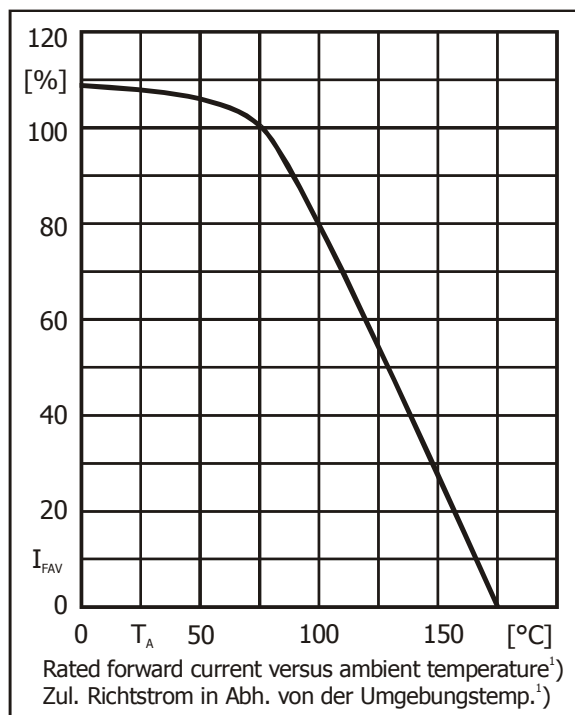
|                                                                                                   |                          |           |                      |
|---------------------------------------------------------------------------------------------------|--------------------------|-----------|----------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschtung mit R-Last     | $T_A = 75^\circ\text{C}$ | $I_{FAV}$ | 1 A <sup>1)</sup>    |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwell | $T_A = 25^\circ\text{C}$ | $I_{FSM}$ | 27/30 A              |
| Rating for fusing, $t < 10$ ms<br>Grenzlastintegral, $t < 10$ ms                                  | $T_A = 25^\circ\text{C}$ | $i^2t$    | 3.6 A <sup>2</sup> s |
| Junction temperature – Sperrschichttemperatur                                                     |                          | $T_j$     | -50...+175°C         |
| Storage temperature – Lagerungstemperatur                                                         |                          | $T_s$     | -50...+175°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 (Löt-pad) an jedem Anschluss

## Characteristics

## Kennwerte

|                                                                                             |                                                       |                                                                                      |                      |                |                                         |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------|----------------|-----------------------------------------|
| Forward voltage<br>Durchlass-Spannung                                                       | $T_j = 25^\circ\text{C}$                              | $I_F = 1\text{ A}$                                                                   | GL1A...G<br>GL1J...M | $V_F$<br>$V_F$ | < 1.2 V<br>< 1.3 V                      |
| Leakage current<br>Sperrstrom                                                               | $T_j = 25^\circ\text{C}$<br>$T_j = 125^\circ\text{C}$ | $V_R = V_{RRM}$<br>$V_R = V_{RRM}$                                                   |                      | $I_R$<br>$I_R$ | < 5 $\mu\text{A}$<br>< 50 $\mu\text{A}$ |
| Typical reverse recovery time<br>Typische Sperrverzugszeit                                  |                                                       | $I_F = 0.5\text{ A}$ through/über<br>$I_R = 1\text{ A}$ to/auf $I_R = 0.25\text{ A}$ |                      |                | 1.5 $\mu\text{s}$                       |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |                                                       |                                                                                      |                      | $R_{thA}$      | < 75 K/W <sup>1)</sup>                  |
| Thermal resistance junction to terminal<br>Wärmewiderstand Sperrschicht – Anschluss         |                                                       |                                                                                      |                      | $R_{thT}$      | < 40 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