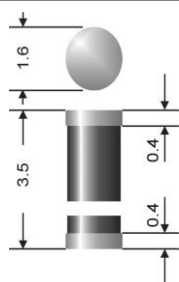


# SGL 34-20...SGL 34-100



## Surface mount diode

## Schottky barrier rectifiers diodes

### SGL 34-20...SGL 34-100

Forward Current: 0,5 A

Reverse Voltage: 20 to 100 V

### Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- One gray ring denotes " cathode " and " Schottky-Rectifier "
- The type numbers are noted only on the label on the reel

### Mechanical Data

- Plastic case MiniMelf / DO-213AA / SOD 80
- Weight approx.: 0,04 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 2500 pieces per reel

- 1) Max. temperature of the terminals  $T_T = 100\text{ °C}$
- 2)  $I_F = 0,5\text{ A}$ ,  $T_j = 25\text{ °C}$
- 3)  $T_A = 25\text{ °C}$
- 4) Mounted on P.C. board with 25 mm<sup>2</sup> copper pads at each terminal

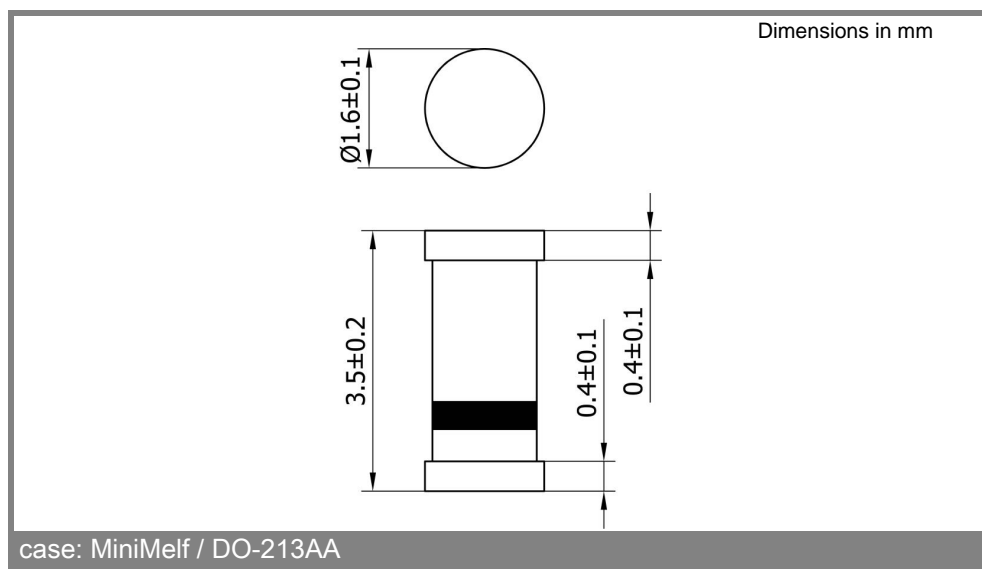
Type	Polarity color band	Repetitive peak reverse voltage $V_{RRM}$ V	Surge peak reverse voltage $V_{RSM}$ V	Maximum forward voltage $T_j = 25\text{ °C}$ $I_F = 0,5\text{ A}$ $V_F^{(2)}$ V	Maximum reverse recovery time $I_F = -\text{A}$ $I_R = -\text{A}$ $I_{RR} = -\text{A}$ $t_{rr}$ ns
SGL 34-20	-	20	20	0,46	-
SGL 34-30	-	30	30	0,46	-
SGL 34-40	-	40	40	0,46	-
SGL 34-50	-	50	50	0,6	-
SGL 34-60	-	60	60	0,6	-
SGL 34-90	-	90	90	0,65	-
SGL 34-100	-	100	100	0,65	-

### Absolute Maximum Ratings $T_c = 25\text{ °C}$ , unless otherwise specified

Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_T = 75\text{ °C}$	0,5	A
$I_{FRM}$	Repetitive peak forward current $f > 15\text{ Hz}^1)$	6	A
$I_{FSM}$	Peak fwd. surge current 50 Hz half sinus-wave <sup>3)</sup>	10	A
$I^2t$	Rating for fusing, $t < \text{ms}^3)$		A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient <sup>4)</sup>	150	K/W
$R_{thT}$	Max. thermal resistance junction to terminals	70	K/W
$T_j$	Operating junction temperature	-50...+150	°C
$T_s$	Storage temperature	-50...+150	°C

### Characteristics $T_c = 25\text{ °C}$ , unless otherwise specified

Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25\text{ °C}$ ; $V_R = V_{RRM}$	<0,5	mA
	$T_j = 100\text{ °C}$ ; $V_R = V_{RRM}$	<5,0	mA
$C_j$	Typical junction capacitance (at 1 MHz and applied reverse voltage of 6 V)	30	pF
$Q_{rr}$	Reverse recovery charge ( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/\text{ms}$ )	-	µC
$E_{RSM}$	Non repetitive peak reverse avalanche energy ( $I_R = \text{mA}$ ; $T_j = \text{°C}$ ; inductive load switched off)	-	mJ



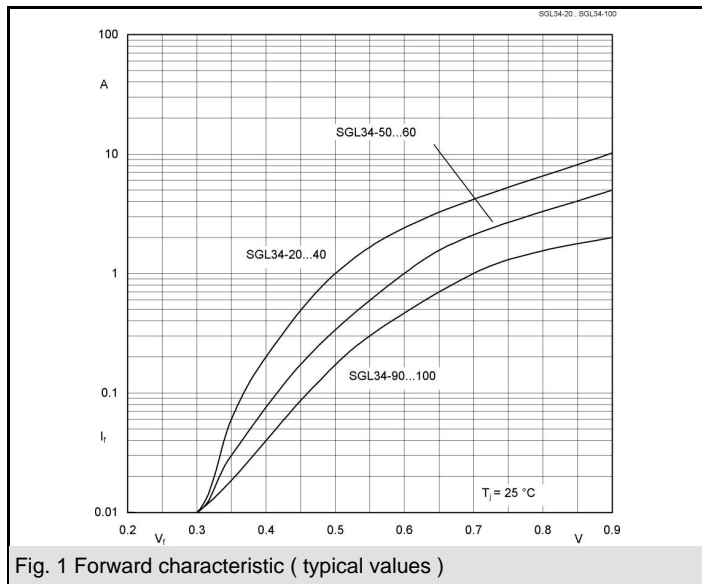


Fig. 1 Forward characteristic ( typical values )

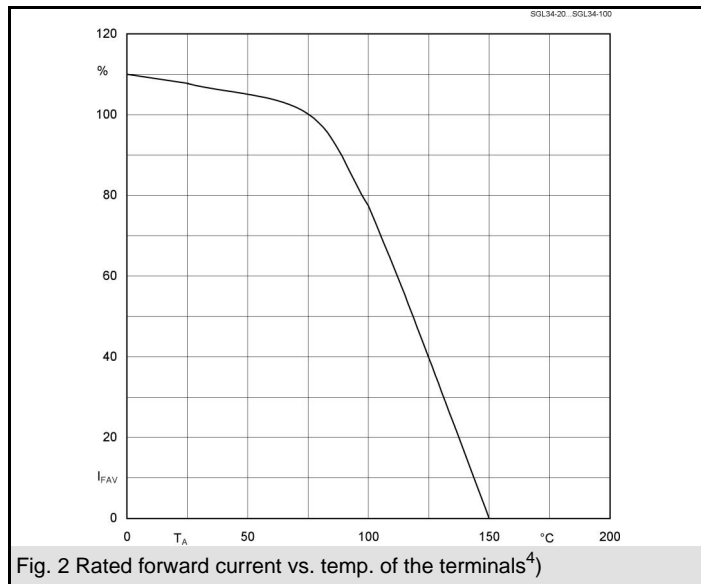


Fig. 2 Rated forward current vs. temp. of the terminals<sup>4)</sup>