

## Surface mount diode

**Schottky barrier rectifiers  
diodes**

### SMS 220...SMS 2100

**Forward Current: 2 A**

**Reverse Voltage: 20 to 100 V**

### Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

### Mechanical Data

- Plastic case Melf / DO-213AB
- Weight approx.: 0,12 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 5000 pieces per reel

1) Max. temperature of the terminals  $T_T = 100^\circ\text{C}$

2)  $I_F = 2 \text{ A}$ ,  $T_J = 25^\circ\text{C}$

3)  $T_A = 25^\circ\text{C}$

4) Mounted on P.C. board with 50 mm<sup>2</sup> copper pads at each terminal

Type	Polarity color band	Repetitive peak reverse voltage	Surge peak reverse voltage	Maximum forward voltage $T_j = 25^\circ\text{C}$ $I_F = 2 \text{ A}$	Maximum reverse recovery time $I_F = -2 \text{ A}$ $I_R = -2 \text{ A}$ $I_{RR} = -2 \text{ A}$ $t_{rr}$ ns
SMS 220	-	20	20	0,5	-
SMS 230	-	30	30	0,5	-
SMS 240	-	40	40	0,5	-
SMS 250	-	50	50	0,7	-
SMS 260	-	60	60	0,7	-
SMS 290	-	90	90	0,79	-
SMS 2100	-	100	100	0,79	-

### Absolute Maximum Ratings

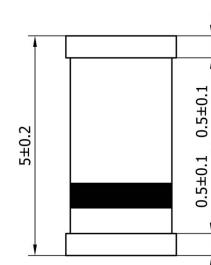
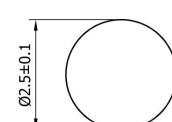
$T_A = 25^\circ\text{C}$ , unless otherwise specified

Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_T = 100^\circ\text{C}$	2	A
$I_{FRM}$	Repetitive peak forward current $f > 15 \text{ Hz}^1)$	12	A
$I_{FSM}$	Peak fwd. surge current 50 Hz half sinus-wave <sup>3)</sup>	50	A
$I_{Ft}$	Rating for fusing, $t < 10 \text{ ms}^3)$	12,5	A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient <sup>4)</sup>	45	K/W
$R_{thT}$	Max. thermal resistance junction to terminals	10	K/W
$T_j$	Operating junction temperature	-50...+150	°C
$T_s$	Storage temperature	-50...+150	°C

### Characteristics

$T_A = 25^\circ\text{C}$ , unless otherwise specified

Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25^\circ\text{C}$ ; $V_R = V_{RRM}$ $T_j = 100^\circ\text{C}$ ; $V_R = V_{RRM}$	<0,5 <10,0	mA mA
$C_J$	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	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 ( $I_R = \text{mA}$ ; $T_j = {}^\circ\text{C}$ ; inductive load switched off)	-	mJ



case: Melf / DO-213AB

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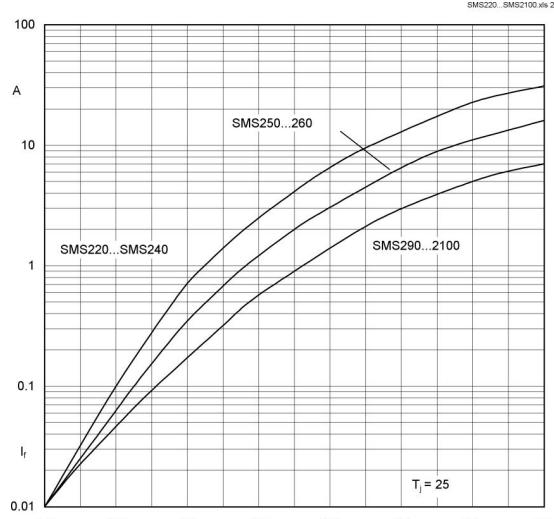


Fig. 1 Forward characteristic ( typical values )

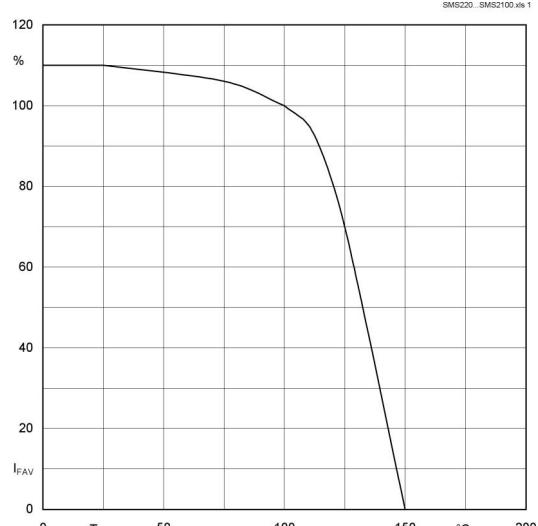


Fig. 2 Rated forward current vs. temp. of the terminals<sup>4)</sup>