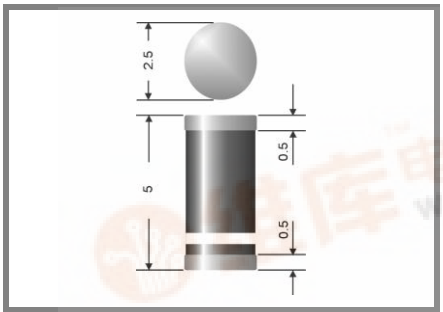
SMS 120...SMS 1100



Surface mount diode

Schottky barrier rectifiers diodes

SMS 120...SMS 1100

Forward Current: 1 A

Reverse Voltage: 20 to 100 V

Type	Polarity color band	Repetitive peak reverse voltage V_{RRM} V	Surge peak reverse voltage V_{RSM} V	Maximum forward voltage T_j = 25 °C I_F = 1 A V_F 2) V	Maximum reverse recovery time I_F = - A I_R = - A I_{RR} = - A t_{rr} ns
SMS 120	-	20	20	0,5	-
SMS 130	-	30	30	0,5	-
SMS 140	-	40	40	0,5	-
SMS 150	-	50	50	0,7	-
SMS 160	-	60	60	0,7	-
SMS 190	-	90	90	0,79	-
SMS 1100	-	100	100	0,79	-

Absolute Maximum Ratings

Tc = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, T_T = 100 °C	1	A
I_{FRM}	Repetitive peak forward current f > 15 Hz[1])	10	A
I_{FSM}	Peak fwd. surge current 50 Hz half sinus-wave [3])	30	A
I^2t	Rating for fusing, t < 10 ms [3])	4,5	A^2s
R_{thA}	Max. thermal resistance junction to ambient [4])	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

Tc = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_R	Maximum leakage current, T_j = 25 °C; $V_R = V_{RRM}$ T_j = 100 °C; $V_R = V_{RRM}$	<0.5 <5.0	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/ms)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy (I_R = mA; T_j = °C; inductive load switched off)	-	mJ

Features

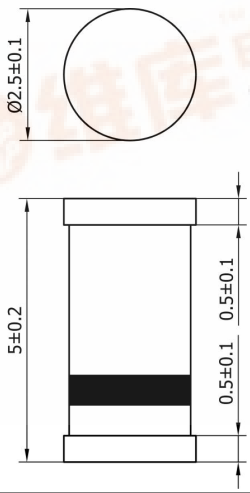
- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

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 °C
2) I_F = 1 A, Tj = 25 °C
3) T_A = 25 °C
4) Mounted on P.C. board with 25 mm^2 copper pads at each terminal

Dimensions in mm



case: Melf / DO-213AB

SMS 120...SMS 1100

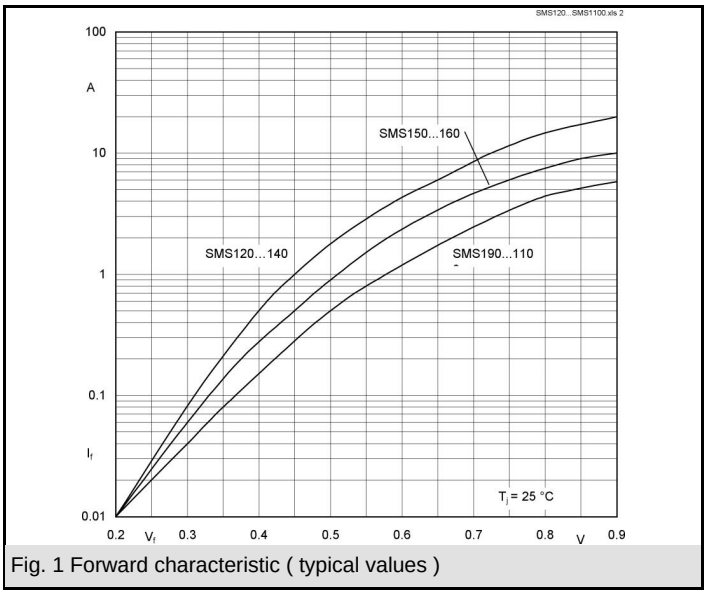


Fig. 1 Forward characteristic (typical values)

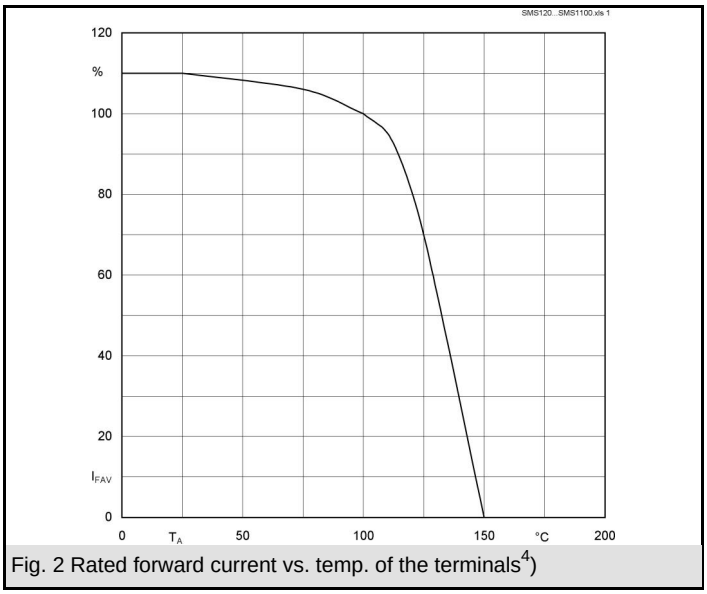


Fig. 2 Rated forward current vs. temp. of the terminals[4])