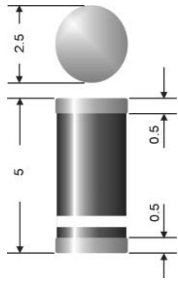


SM 5400...SM 5408



Surface mount diode

Standard silicon rectifier diodes

SM 5400...SM 5408

Forward Current: 3 A

Reverse Voltage: 50 to 1000 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 $T_T = 50$ °C
 - 2) $I_F = 3$ A, $T_j = 25$ °C
 - 3) $T_A = 25$ °C
 - 4) Mounted on P.C. board with 60 mm² 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 $T_j = 25$ °C $I_F = 3$ A $V_F^{(2)}$ V	Maximum reverse recovery time $I_F = -A$ $I_R = -A$ $I_{RR} = -A$ t_{rr} ns
SM 5400	-	50	50	1,2	-
SM 5401	-	100	100	1,2	-
SM 5402	-	200	200	1,2	-
SM 5403	-	300	300	1,2	-
SM 5404	-	400	400	1,2	-
SM 5405	-	500	500	1,2	-
SM 5406	-	600	600	1,2	-
SM 5407	-	800	800	1,2	-
SM 5408	-	1000	1000	1,2	-

Absolute Maximum Ratings		$T_A = 25$ °C, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_T = 50$ °C	3	A
I_{FRM}	Repetitive peak forward current ($f > 15$ Hz ¹⁾)	30	A
I_{FSM}	Peak fwd. surge current 50 Hz half sinus-wave ³⁾	70	A
I^2t	Rating for fusing, $t < 10$ ms ³⁾	24	A ² s
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...+175	°C
T_s	Storage temperature	-50...+175	°C

Characteristics		$T_A = 25$ °C, unless otherwise specified	
Symbol	Conditions	Values	Units
I_R	Maximum leakage current, $T_j = 25$ °C; $V_R = V_{RRM}$ $T_j =$ °C; $V_R = V_{RRM}$	<10	µA
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 ($L = mH$; $T_j =$ °C; inductive load switched off)	-	mJ

