



Surface mount diode

Standard silicon rectifier diodes

SM 5059...SM 5063

Forward Current: 2 A

Reverse Voltage: 200 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) $I_F = 2$ A, $T_j = 25$ °C
- 3) $T_A = 25$ °C
- 4) Mounted on P.C. board with 50 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 $I_F = 2$ A $V_F^{(2)}$ V	Maximum reverse recovery time $I_F = -A$ $I_R = -A$ $I_{RR} = -A$ t_{rr} ns
SM 5059	-	200	200	1,1	-
SM 5060	-	400	400	1,1	-
SM 5061	-	600	600	1,1	-
SM 5062	-	800	800	1,1	-
SM 5063	-	1000	1000	1,1	-

Absolute Maximum Ratings

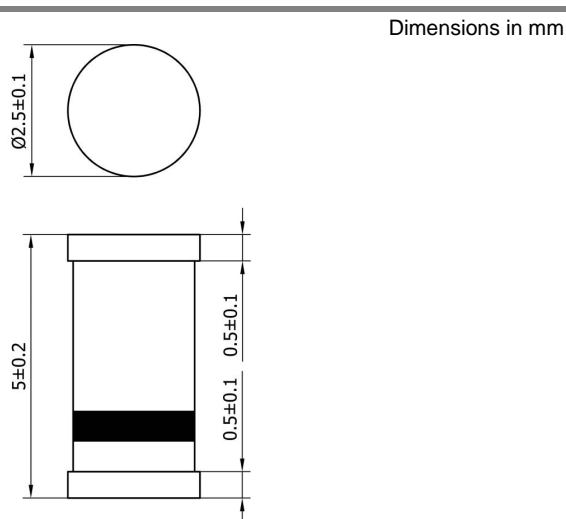
$T_c = 25$ °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_T = 50$ °C	2	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⁾	50	A
I^2t	Rating for fusing, $t < 10$ ms ³⁾	12,5	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

$T_c = 25$ °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_R	Maximum leakage current, $T_j = 25$ °C; $V_R = V_{RRM}$ $T_j = 165$ °C; $V_R = V_{RRM}$	<5 <300	μ A μ A
C_j	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
Q_{rr}	Reverse recovery charge ($U_R = V$; $I_F = A$; $dI_F/dt = A/ms$)	-	μ C
E_{RSM}	Non repetitive peak reverse avalanche energy ($I_R = mA$; $T_j =$ °C; inductive load switched off)	-	mJ



case: Melf / DO-213AB

