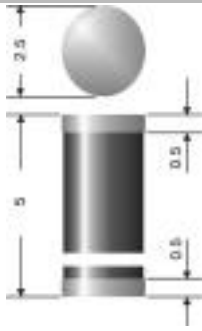




EN: This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.



Surface mount diode

Standard silicon rectifier diodes

SM 4001...SM 4007

Forward Current: 1 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 $T_T = 75\text{ °C}$

²⁾ $I_F = 1\text{ A}$, $T_j = 25\text{ °C}$

³⁾ $T_A = 25\text{ °C}$

⁴⁾ Mounted on P.C. board with 25 mm² copper pads at each terminal

Type	Polarity	Repetitive	Surge	Maximum	Maximum
	color	peak	peak	forward	reverse
	band	reverse	reverse	voltage	recovery
		voltage	voltage	$T_j = 25\text{ °C}$	time
				$I_F = 1\text{ A}$	$I_F = -\text{A}$
					$I_R = -\text{A}$
					$I_{RR} = -\text{A}$
		V_{RRM}	V_{RSM}	$V_F^{2)}$	t_{rr}
		V	V	V	ns
SM 4001	-	50	50	1,1	-
SM 4002	-	100	100	1,1	-
SM 4003	-	200	200	1,1	-
SM 4004	-	400	400	1,1	-
SM 4005	-	600	600	1,1	-
SM 4006	-	800	800	1,1	-
SM 4007	-	1000	1000	1,1	-

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

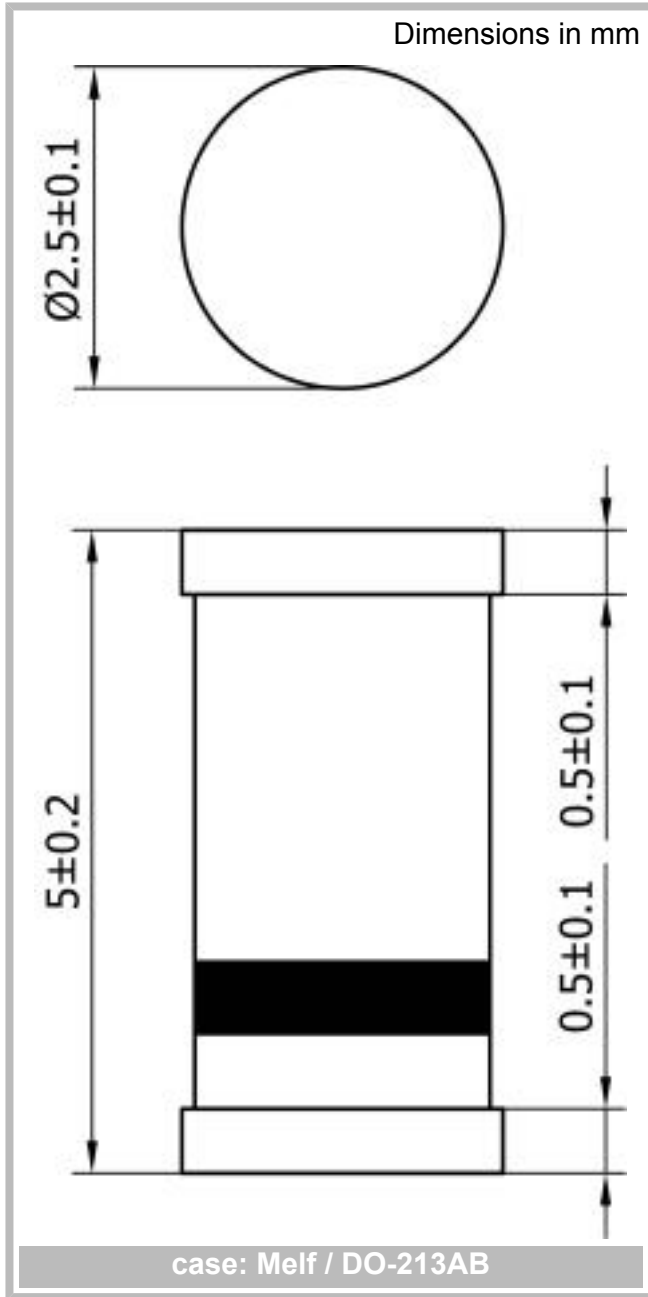
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_T = 75\text{ °C}$	1	A
I_{FRM}	Repetitive peak forward current $f > 15\text{ Hz}^1)$	10	A
I_{FSM}	Peak fwd. surge current 50 Hz half sinus-wave ³⁾	40	A
I^2t	Rating for fusing, $t < 10\text{ ms}^3)$	8	A ² s
R_{thA}	Max. thermal 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 $T_c = 25\text{ °C}$, unless otherwise specified

Symbol	Conditions	Values	Units
I_R	Maximum leakage current, $T_j = 25\text{ °C}$; $V_R = V_{RRM}$	<5	μA
	$T_j = 100\text{ °C}$; $V_R = V_{RRM}$	<50	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 ($I_R = mA$; $T_j = ^\circ C$; inductive load switched off)	-	mJ

Cases / Circuits



Diagrams

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