

Surface mount diode

Standard silicon rectifier diodes

S1 T ... S1 Y

Forward Current: 1 A

Reverse Voltage: 1300 to 2000 V

Features

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

Mechanical Data

- Plastic case: SMA / DO-214AC
- Weight approx.: 0,07 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 7500 pieces per reel

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

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

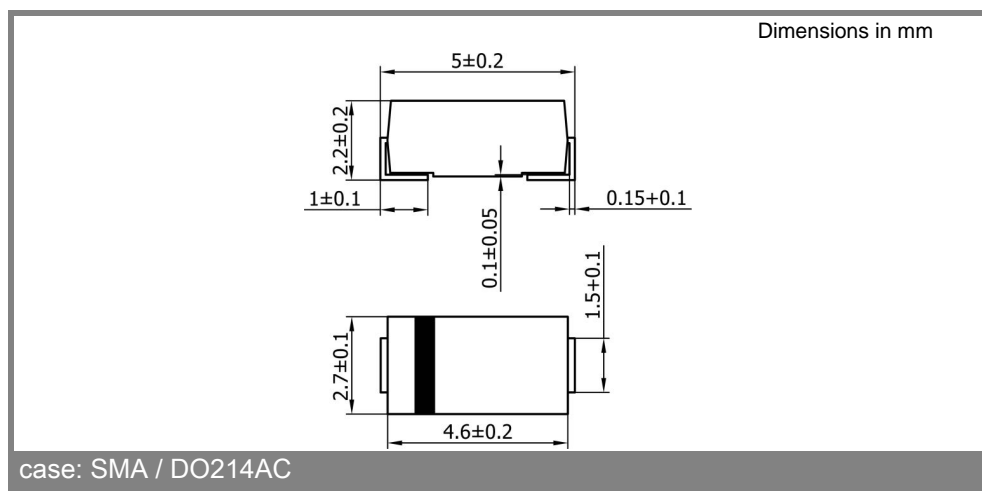
3) $T_A = 25\text{ °C}$

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

Type	Polarity color band	Repetitive peak reverse voltage	Surge peak reverse voltage	Maximum forward voltage $T_J = 25\text{ °C}$ $I_F = 1\text{ A}$	Maximum reverse recovery time $I_F = -\text{A}$ $I_R = -\text{A}$ $I_{RR} = -\text{A}$ t_{rr} ns
		V_{RRM} V	V_{RSM} V	$V_F^{(2)}$ V	
S1 T	-	1300	1300	1,1	-
S1 W	-	1600	1600	1,1	-
S1 X	-	1800	1800	1,1	-
S1 Y	-	2000	2000	1,1	-

Absolute Maximum Ratings		$T_A = 25\text{ °C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_T = 100\text{ °C}$ ¹⁾	1	A
I_{FRM}	Repetitive peak forward current $f > 15\text{ Hz}$ ¹⁾	6	A
I_{FSM}	Peak fwd. surge current 50 Hz half sinus-wave ³⁾	30	A
I^2t	Rating for fusing, $t < 10\text{ ms}$ ³⁾	4,5	A ² s
R_{thA}	Max. thermal resistance junction to ambient ⁴⁾	70	K/W
R_{thT}	Max. thermal resistance junction to terminals	30	K/W
T_J	Operating junction temperature	-50 ... +150	°C
T_s	Storage temperature	-50 ... +150	°C

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



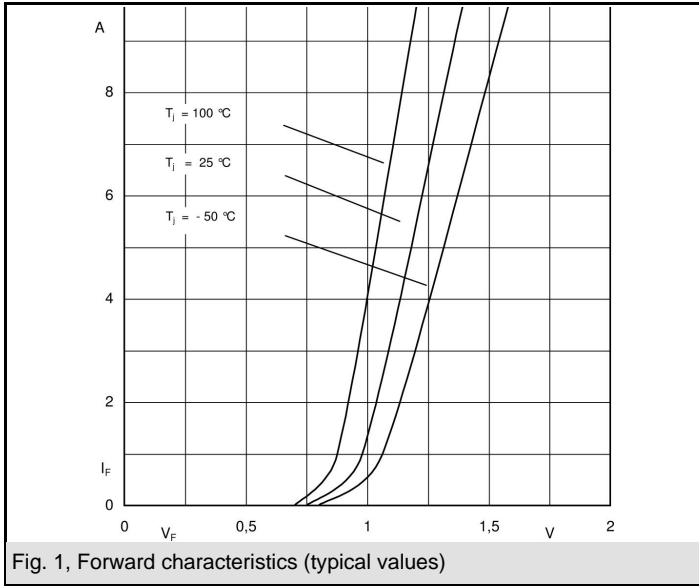


Fig. 1, Forward characteristics (typical values)

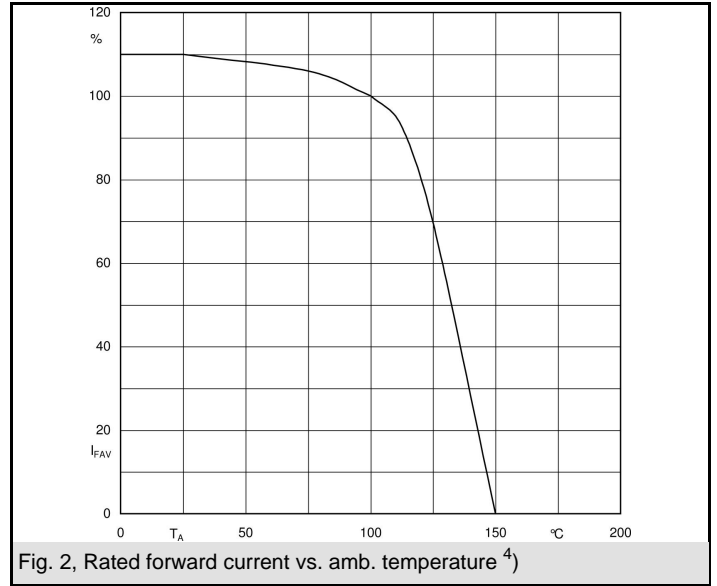


Fig. 2, Rated forward current vs. amb. temperature ⁴⁾