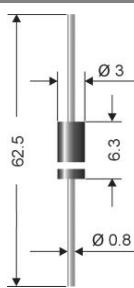


1N 5391...1N 5399



Axial lead diode

Standard silicon rectifier diodes

1N 5391...1N 5399

Forward Current: 1,5 A

Reverse Voltage: 50 to 1000 V

Features

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

Mechanical Data

- Plastic case DO-15 / DO-204AC
- Weight approx.: 0.4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 4000 pieces per ammo

1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

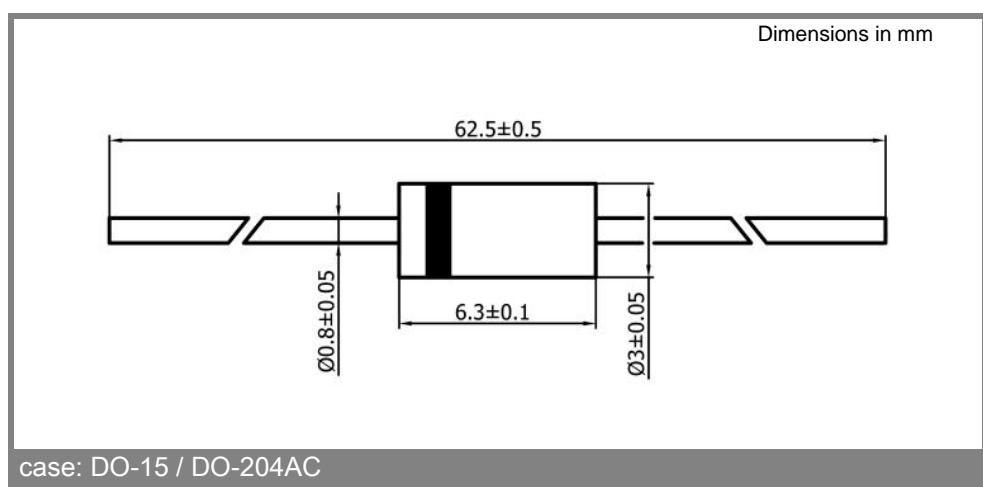
2) $I_F = 1,5\text{A}$, $T_j = 25^\circ\text{C}$

3) $T_A = 25^\circ\text{C}$

Type	Repetitive peak reverse voltage V_{RRM} V	Surge peak reverse voltage V_{RSM} V	Max. reverse recovery time t_{rr} ns	Max. forward voltage $V_F^2)$
1N 5391	50	100	-	1,3
1N 5392	100	200	-	1,3
1N 5393	200	300	-	1,3
1N 5394	300	400	-	1,3
1N 5395	400	500	-	1,3
1N 5396	500	600	-	1,3
1N 5397	600	800	-	1,3
1N 5398	800	1000	-	1,3
1N 5399	1000	1200	-	1,3

Absolute Maximum Ratings		$T_c = 25^\circ\text{C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 50^\circ\text{C}$ ¹⁾	1,5	A
I_{FRM}	Repetitive peak forward current $f > 15\text{ Hz}^1)$	10	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave ³⁾	50	A
i^2t	Rating for fusing, $t < 10\text{ ms}^3)$	12,5	A ² s
R_{thA}	Max. thermal resistance junction to ambient ¹⁾	45	K/W
R_{thT}	Max. thermal resistance junction to terminals ¹⁾	-	K/W
T_j	Operating junction temperature	-50...+175	°C
T_s	Storage temperature	-50...+175	°C

Characteristics		$T_c = 25^\circ\text{C}$ unless otherwise specified	
Symbol	Conditions	Values	Units
I_R	Maximum leakage current, $T_j = 25^\circ\text{C}$; $V_R = V_{RRM}$	<10	µA
	$T_j = 100^\circ\text{C}$; $V_R = V_{RRM}$	<50	µA
C_J	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
Q_{rr}	Reverse recovery charge ($U_R = V$; $I_F = A$; $dI_F/dt = A/\text{ms}$)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy ($I_R = \text{mA}$; $T_j = {}^\circ\text{C}$; inductive load switched off)	-	mJ



1N 5391...1N 5399

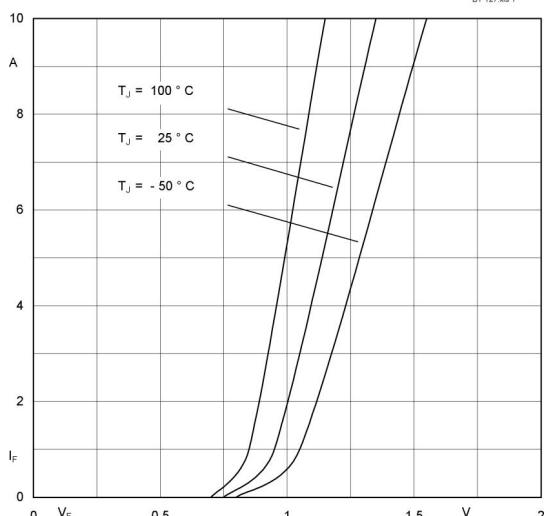


Fig. 1 Forward characteristics (typical values)

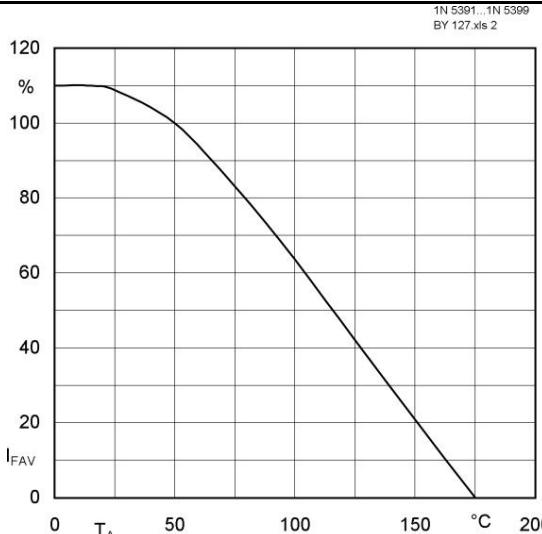


Fig. 2 Rated forward current vs. ambient temperature ¹⁾

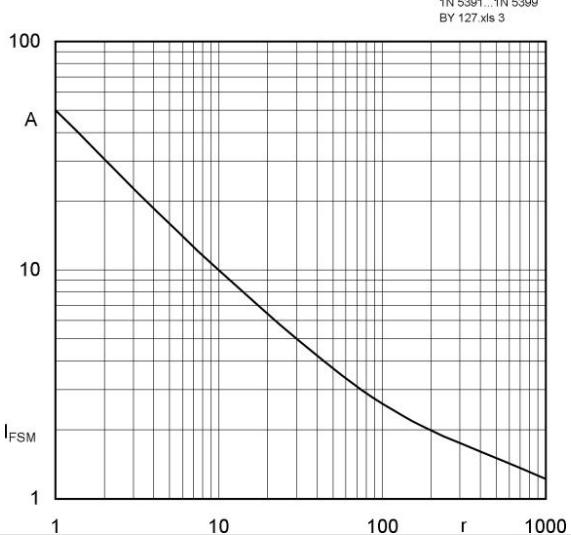


Fig. 3 I_{FSM} current versus number of cycles at 50 Hz