

Axial lead diode

Fast silicon rectifier diodes

1N 4933...1N 4937

Forward Current: 1 A

Reverse Voltage: 50 to 600 V

Features

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

Mechanical Data

- Plastic case DO-41 / DO-204AL
- Weight approx.: 0.4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 5000 pieces per ammo

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

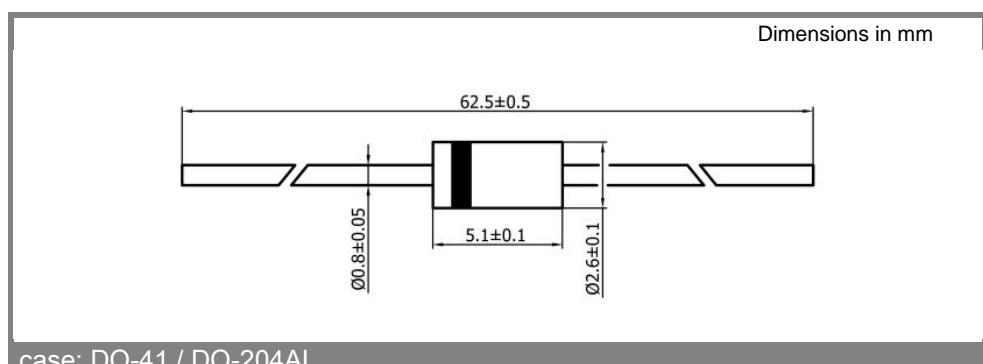
2) $I_F = 1A$, $T_j = 25^\circ C$

3) $T_A = 25^\circ C$

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 4933	50	50	200	1,2
1N 4934	100	100	200	1,2
1N 4935	200	200	200	1,2
1N 4936	400	400	200	1,2
1N 4937	600	600	200	1,2

Absolute Maximum Ratings		$T_c = 25^\circ C$, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 75^\circ C$ ¹⁾	1	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⁾	30	A
i^2t	Rating for fusing, $t < 10 \text{ ms}^3)$	4,5	A^2s
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...+150	$^\circ C$
T_s	Storage temperature	-50...+175	$^\circ C$

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



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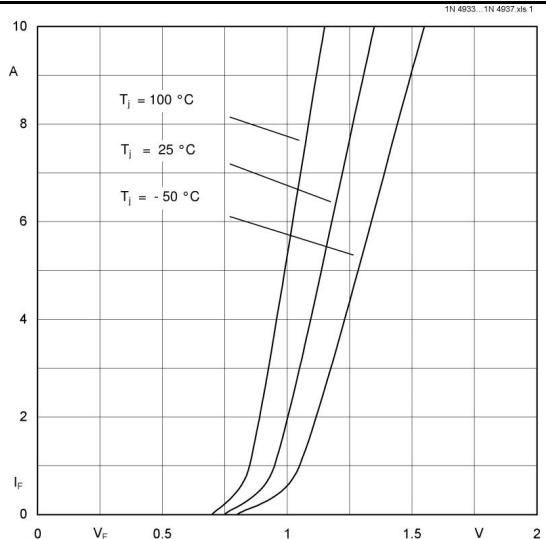


Fig. 1 Forward characteristics (typical values)

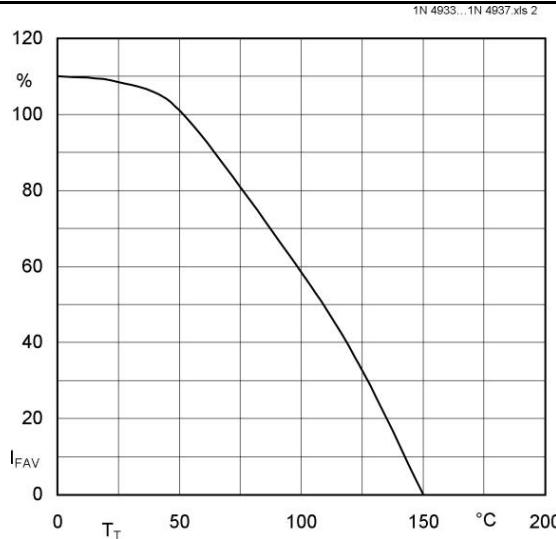


Fig. 2 Rated forward current vs. ambient temperature ¹⁾

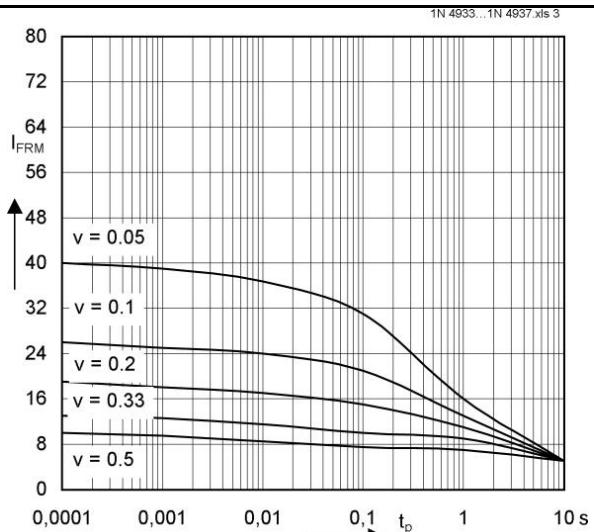


Fig. 3 Rated I_{FRM} current versus pulse duration