

## 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

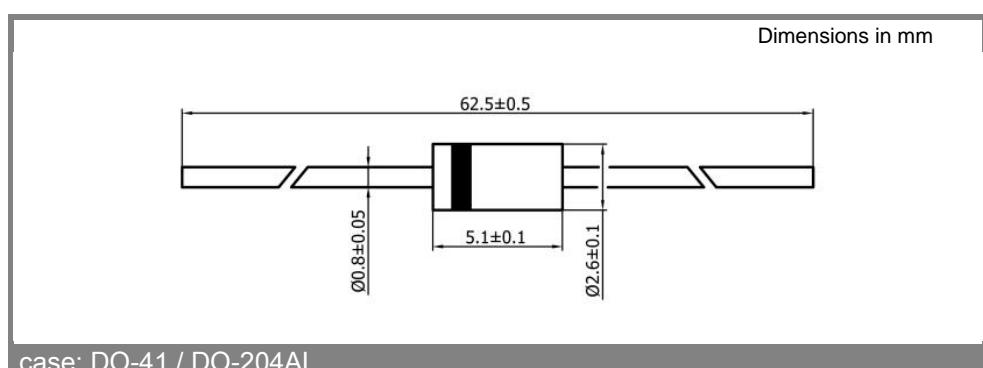
2)  $I_F = 1A$ ,  $T_j = 25^\circ C$

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 $V_F$ <sup>2)</sup>
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, $T_A = 75^\circ C$ <sup>1)</sup>	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 <sup>3)</sup>	30	A
$i^2t$	Rating for fusing, $t < 10 \text{ ms}^3)$	4,5	$\text{A}^2\text{s}$
$R_{thA}$	Max. thermal resistance junction to ambient <sup>1)</sup>	45	K/W
$R_{thT}$	Max. thermal resistance junction to terminals <sup>1)</sup>	-	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	$\mu\text{A}$
	$T_j = 100^\circ C$ ; $V_R = V_{RRM}$	<100	$\mu\text{A}$
$C_J$	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
$Q_{rr}$	Reverse recovery charge ( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/\text{ms}$ )	-	$\mu\text{C}$
$E_{RSM}$	Non repetitive peak reverse avalanche energy ( $I_R = \text{mA}$ ; $T_j = {}^\circ C$ ; inductive load switched off)	-	mJ



# 1N 4933...1N 4937

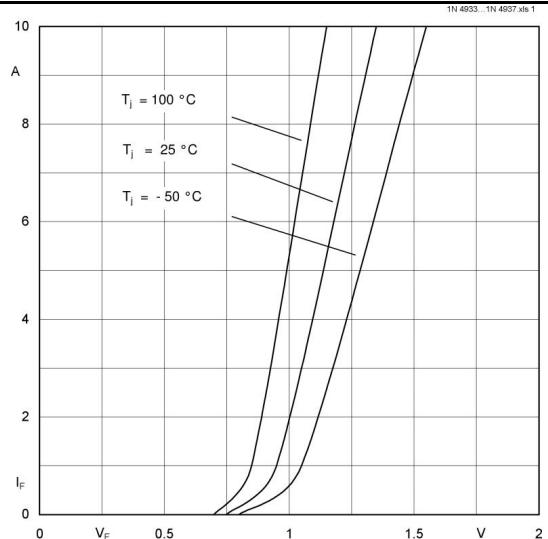


Fig. 1 Forward characteristics ( typical values )

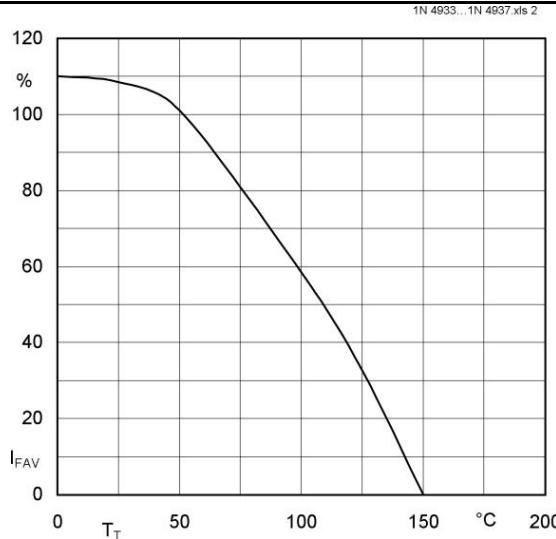


Fig. 2 Rated forward current vs. ambient temperature <sup>1)</sup>

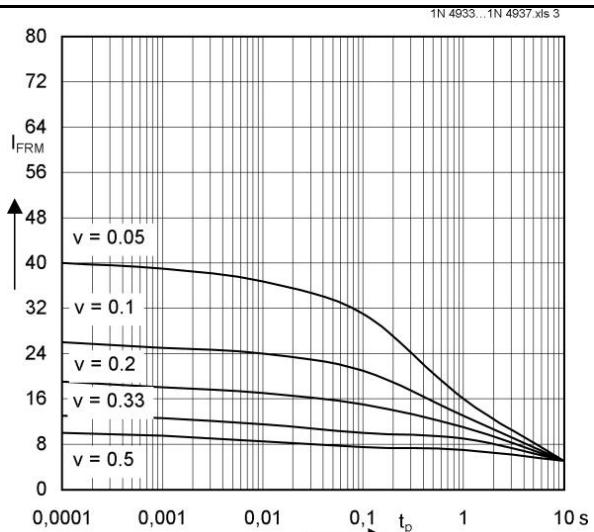


Fig. 3 Rated  $I_{FRM}$  current versus pulse duration