

Axial lead diode

Standard silicon rectifier diodes

1N 5059...1N 5062

Forward Current: 2 A

Reverse Voltage: 200 to 800 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) $I_F = 2A$, $T_j = 25^\circ C$

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 $I_F = -A$ $I_R = -A$ $I_{RR} = -A$ t_{rr} ns	Max. forward voltage $V_F^2)$
1N 5059	200	200	-	1,1
1N 5060	400	400	-	1,1
1N 5061	600	600	-	1,1
1N 5062	800	800	-	1,1

Absolute Maximum Ratings

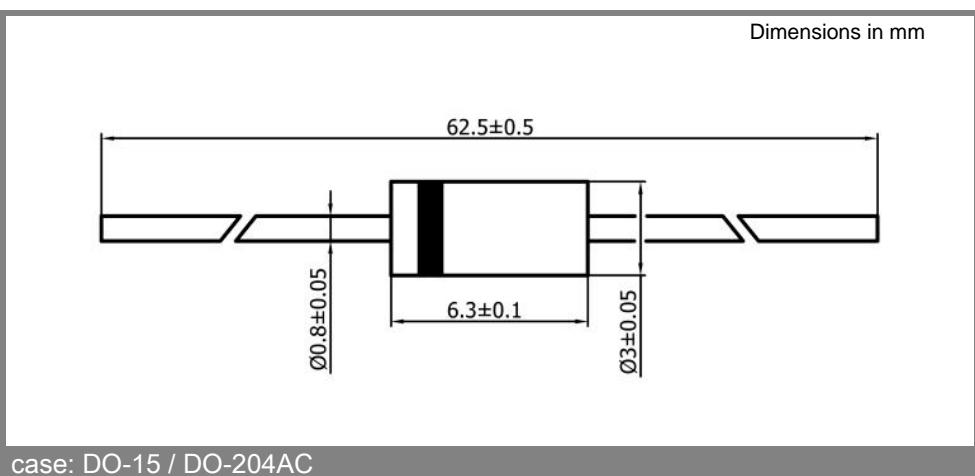
$T_c = 25^\circ C$, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 25^\circ C$ ¹⁾	2	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...+150	°C
T_s	Storage temperature	-50...+175	°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
	$T_j = 0^\circ C$; $V_R = V_{RRM}$		
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 ($I_R = mA$; $T_j = 0^\circ C$; inductive load switched off)	-	mJ



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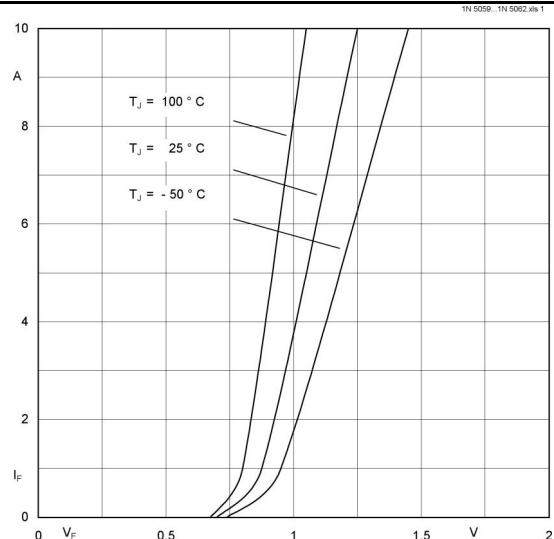


Fig. 1 Forward characteristics (typical values)

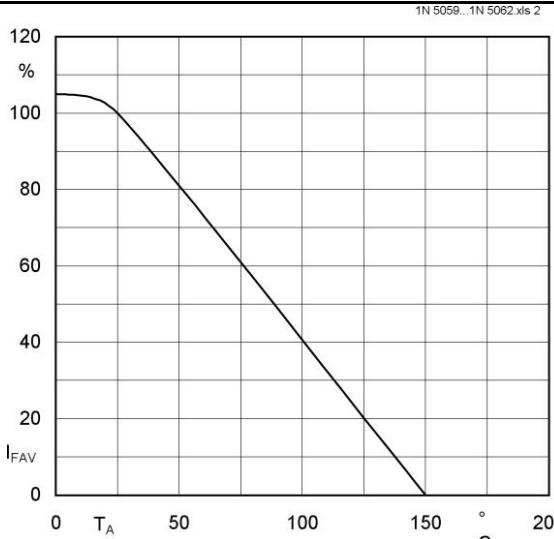


Fig. 2 Rated forward current vs. ambient temperature ¹⁾

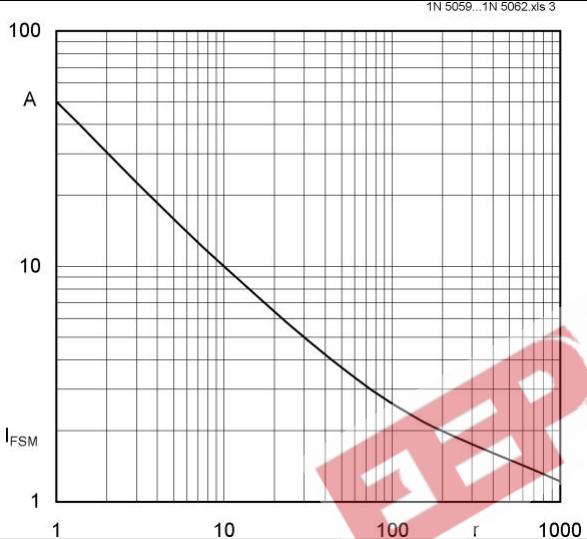


Fig. 3 I_{FSM} current versus number of cycles at 50 Hz