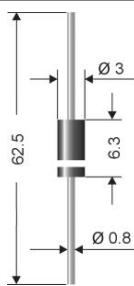


# 1N 5400 K...1N 5408 K



## Axial lead diode

### Standard silicon rectifier diodes

#### 1N 5400 K...1N 5408 K

**Forward Current: 3 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

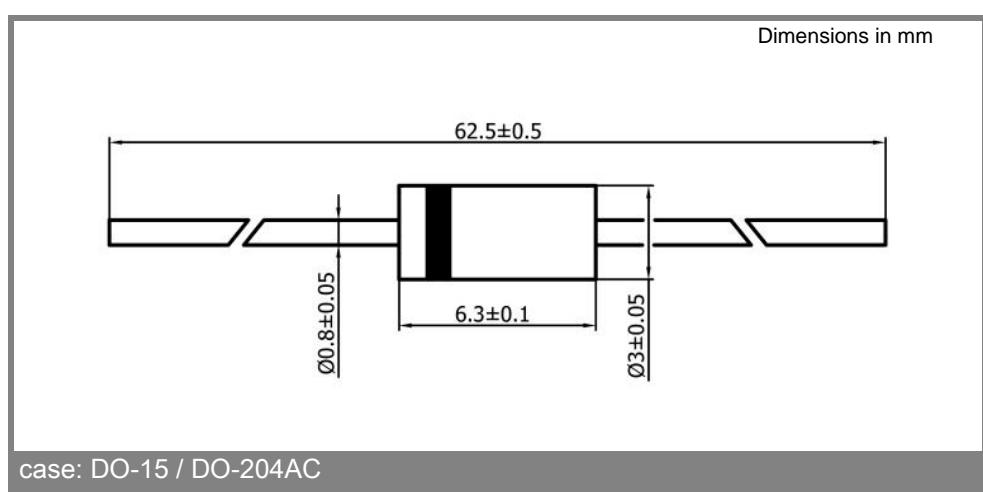
2)  $I_F = 3A$ ,  $T_j = 25^\circ C$

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 5400 K	50	50	-	1,1
1N 5401 K	100	100	-	1,1
1N 5402 K	200	200	-	1,1
1N 5403 K	300	300	-	1,1
1N 5404 K	400	400	-	1,1
1N 5405 K	500	500	-	1,1
1N 5406 K	600	600	-	1,1
1N 5407 K	800	800	-	1,1
1N 5408 K	1000	1000	-	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, $T_A = 50^\circ C$ <sup>1)</sup>	3	A
$I_{FRM}$	Repetitive peak forward current $f > 15 \text{ Hz}^1)$	20	A
$I_{FSM}$	Peak forward surge current 50 Hz half sinus-wave <sup>3)</sup>	70	A
$i^2t$	Rating for fusing, $t < 10 \text{ ms}^3)$	24,5	A <sup>2</sup> 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...+175	°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, $T_j = 25^\circ C$ ; $V_R = V_{RRM}$	<10	µA
	$T_j = ^\circ C$ ; $V_R = V_{RRM}$		
$C_J$	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 ( $I_R = mA$ ; $T_j = ^\circ C$ ; inductive load switched off)	-	mJ



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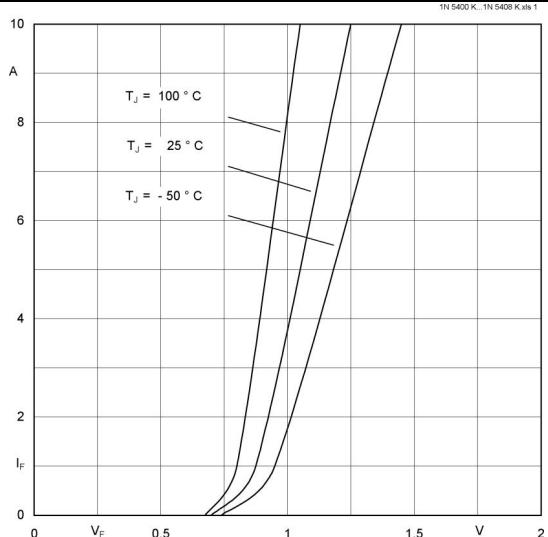


Fig. 1 Forward characteristics ( typical values )

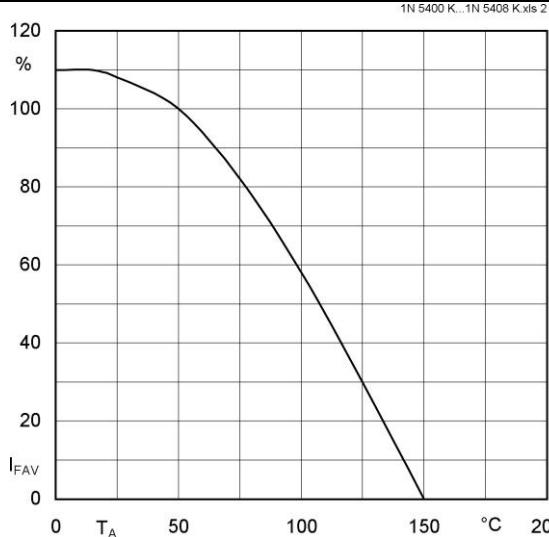


Fig. 2 Rated forward current vs. ambient temperature <sup>1)</sup>

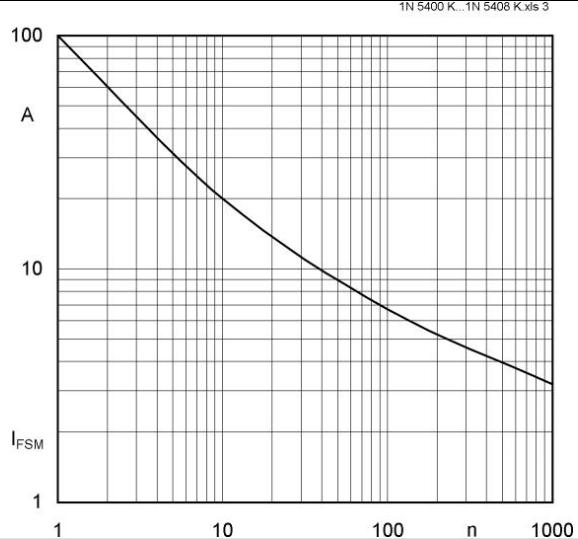


Fig. 3  $I_{FSM}$  current versus number of cycles at 50 Hz