

Axial lead diode

Standard silicon rectifier diodes

P 600 A...P 600 S

Forward Current: 6 A

Reverse Voltage: 50 to 1200 V

Features

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

Mechanical Data

- Plastic case 8 x 7.5 [mm] / P-600 Style
- Weight approx.: 1.5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo

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

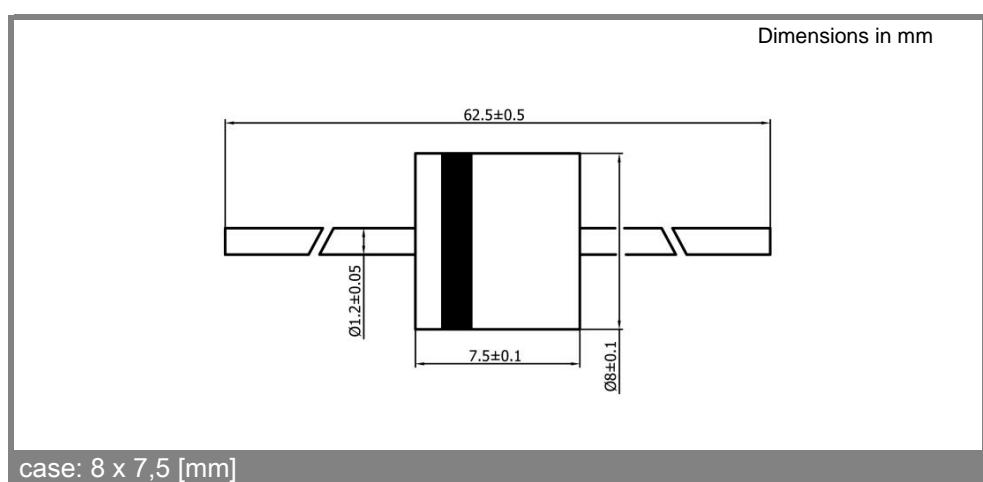
2) $I_F = 5A$, $T_j = 25^\circ C$

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 $V_F^2)$
P 600 A	50	50	-	1,0
P 600 B	100	100	-	1,0
P 600 D	200	200	-	1,0
P 600 G	400	400	-	1,0
P 600 J	600	600	-	1,0
P 600 K	800	800	-	1,0
P 600 M	1000	1000	-	1,0
P 600 S	1200	1200	-	1,0

Absolute Maximum Ratings		$T_c = 25^\circ C$, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 50^\circ C$ ¹⁾	6	A
I_{FRM}	Repetitive peak forward current $f > 15 \text{ Hz}^1)$	60	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave ³⁾	400	A
i^2t	Rating for fusing, $t < 10 \text{ ms}^3)$	800	A^2s
R_{thA}	Max. thermal resistance junction to ambient ¹⁾	20	K/W
R_{thT}	Max. thermal resistance junction to terminals ¹⁾	-	K/W
T_j	Operating junction temperature	-50...+175	$^\circ C$
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, $T_j = 25^\circ C$; $V_R = V_{RRM}$	<25	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 ($I_R = \text{mA}$; $T_j = ^\circ C$; inductive load switched off)	-	mJ



P 600 A...P 600 S

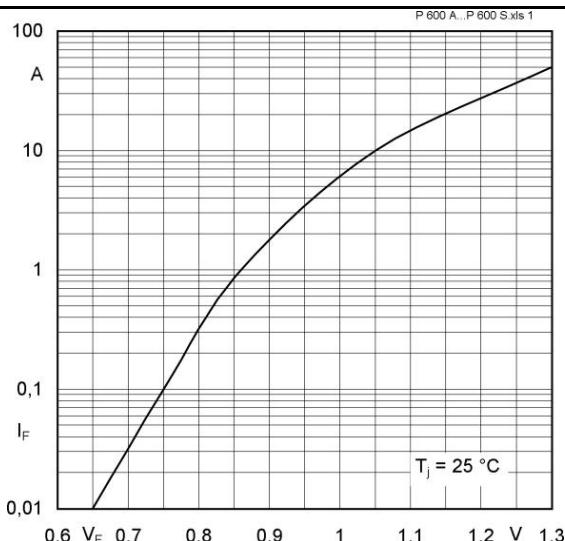


Fig. 1 Forward characteristic (typical values)

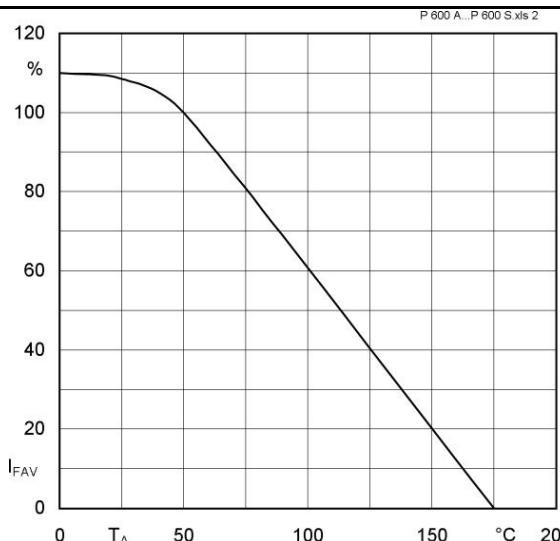


Fig. 2 Rated forward current vs. ambient temperature ¹⁾

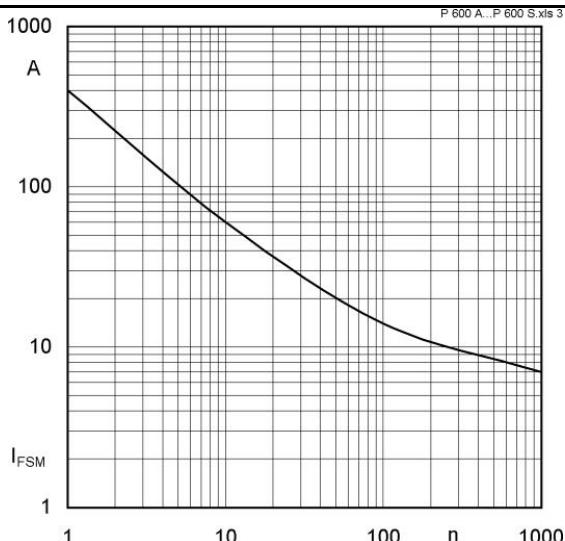


Fig. 3 I_{FSM} current versus number of cycles at 50 Hz