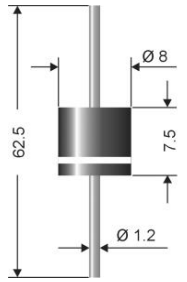
P 600 A...P 600 S



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

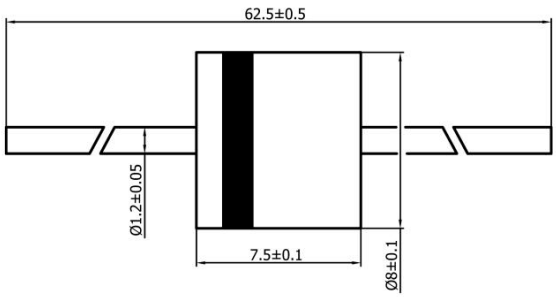
1) Valid, if leads are kept at T_A at a distance of 10 mm from case
2) I_F= 5A, T_j=25°C
3) T_A = 25 °C
4) Thermal resistance from junction to lead/terminal at a distance 0 mm from case
5) Max. junction temperature Tj ≤ 200 °C in bypass mode / DC forward mode

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)
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_A = 25 °C, unless otherwise specified		
Symbol	**Conditions**	**Values**	**Units**
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 50 °C 1)	6	A
I_{FRM}	Repetitive peak forward current f > 15 Hz 1)	60	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave 3)	400	A
i²t	Rating for fusing, t < 10 ms 3)	800	A²s
R_{thA}	Max. thermal resistance junction to ambient 1)		K/W
R_{thL}	Max. thermal resistance junction to terminals 4)	5,5	K/W
T_j	Operating junction temperature	-50...+175 ($T_j \leq$ 200 °C in bypass mode 5))	°C
T_s	Storage temperature	-50...+175	°C

Characteristics	T_A = 25 °C, unless otherwise specified		
Symbol	**Conditions**	**Values**	**Units**
I_R	Maximum leakage current, T_j = 25 °C; V_R = V_{RRM}	<25	µA
	T_j = °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/ms)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy (I_R = mA; T_j = °C; inductive load switched off)	-	mJ

Dimensions in mm



case: 8 x 7,5 [mm]

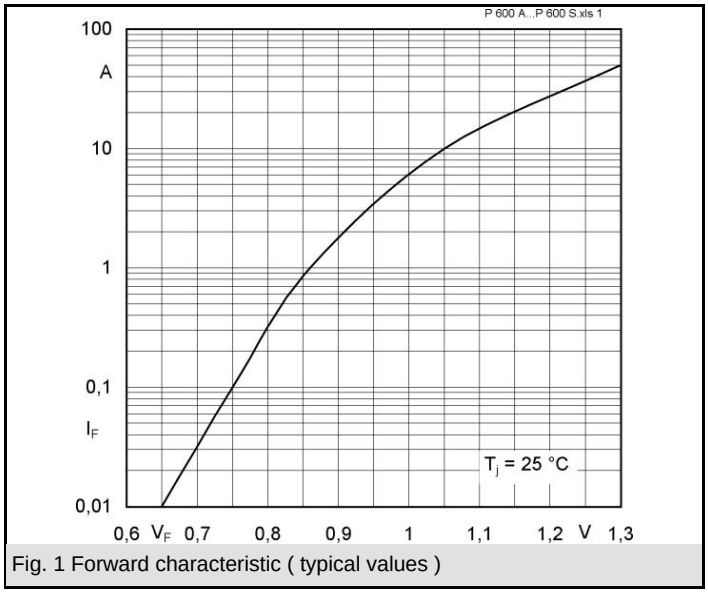


Fig. 1 Forward characteristic (typical values)

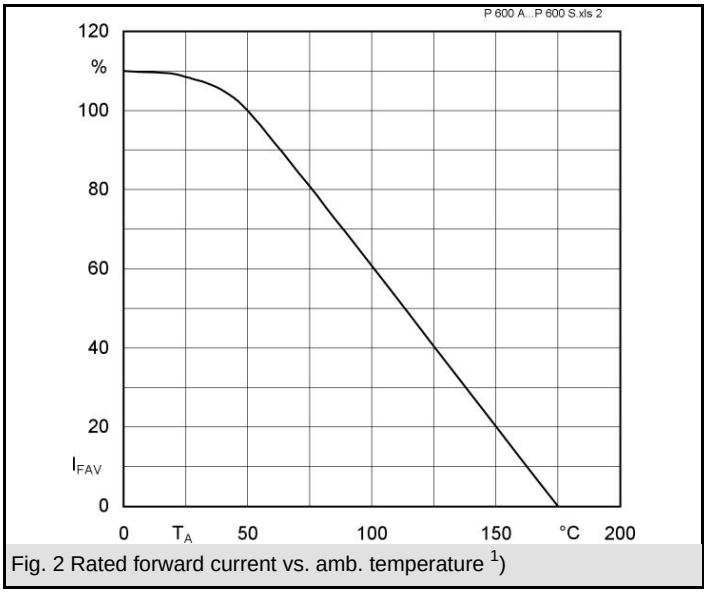


Fig. 2 Rated forward current vs. amb. temperature [1])

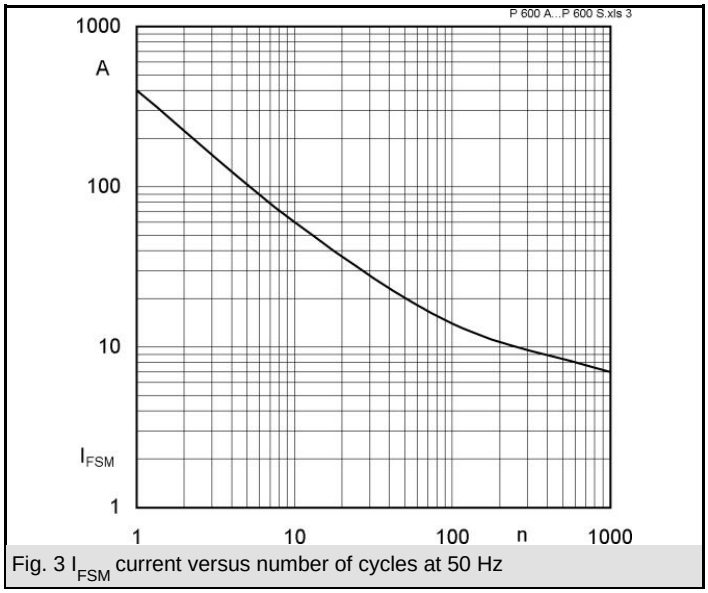


Fig. 3 I_{FSM} current versus number of cycles at 50 Hz

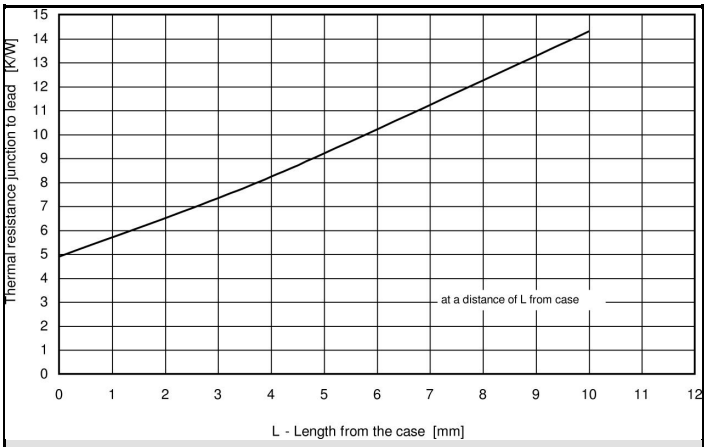


Fig. 4, Thermal resistance versus distance from case

