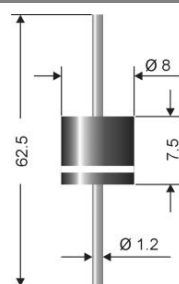


F 1200A ... F 1200G



Axial leaded diode

High efficiency fast silicon rectifier diode

F 1200A ... F 1200G

Forward Current: 12 A

Reverse Voltage: 50 to 400 V

Preliminary Data

Features

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

Mechanical Data

- Plastic case: 8 x 7,5 [mm]
- Weight approx.: 1,5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo or 1000 pieces per reel

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

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

3) $T_A = 25^\circ\text{C}$

4) Thermal resistance from junction to lead/terminal at a distance 0 mm from case

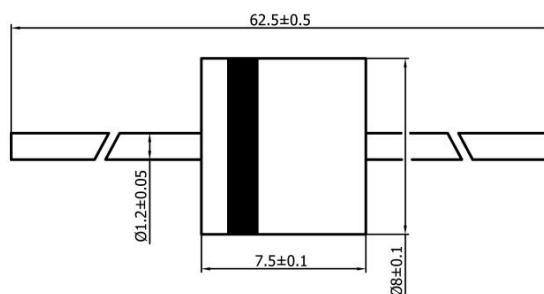
5) Max. junction temperature $T_j \leq 200^\circ\text{C}$ in bypass mode/ DC forward mode

Type	Repetitive peak reverse voltage V_{RRM} V	Surge peak reverse voltage V_{RSM} V	Max. reverse recovery time $I_F = 0,5 \text{ A}$ $I_R = 1 \text{ A}$ $I_{RR} = 1,25 \text{ A}$ t_{rr} ns	Max. forward voltage $V_F^{(2)}$
F 1200A	50	50	200	0,82
F 1200B	100	100	200	0,82
F 1200D	200	200	200	0,82
F 1200G	400	400	200	0,84

Absolute Maximum Ratings		$T_A = 25^\circ\text{C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 50^\circ\text{C}$ ¹⁾	12	A
I_{FRM}	Repetitive peak forward current $f > 15 \text{ Hz}$ ¹⁾	80	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave ³⁾	650	A
i^2t	Rating for fusing, $t < 10 \text{ ms}$ ³⁾	2100	A ² s
R_{thA}	Max. thermal resistance junction to ambient ¹⁾		K/W
R_{thL}	Max. thermal resistance junction to terminals ⁴⁾	2,5	K/W
T_j	Operating junction temperature	- 50 ... + 175 ($T_j \leq 200^\circ\text{C}$ in bypass mode ⁵⁾)	°C
T_s	Storage temperature	- 50 ... + 175	°C

Characteristics		$T_A = 25^\circ\text{C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
I_R	Maximum leakage current, $T_j = 25^\circ\text{C}$; $V_R = V_{RRM}$	<25	µA
	$T_j = ^\circ\text{C}$; $V_R = V_{RRM}$		
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 ($I_R = \text{mA}$; $T_j = ^\circ\text{C}$; inductive load switched off)	-	mJ

Dimensions in mm



case: 8 x 7,5 [mm]

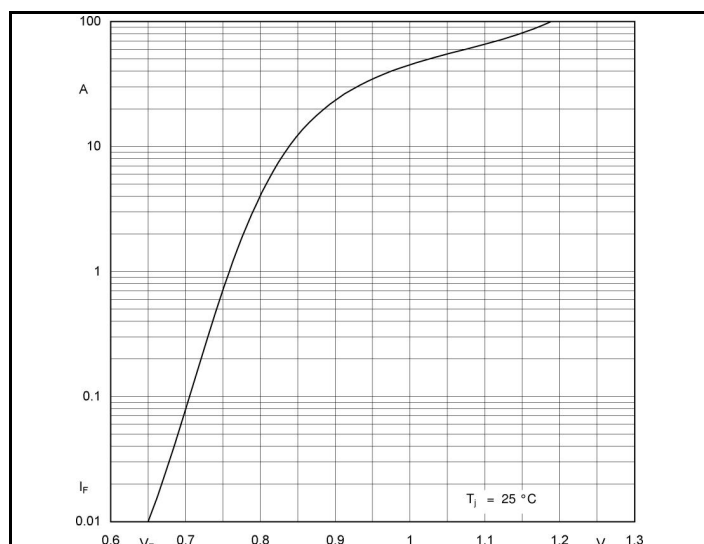


Fig. 1 Forward characteristic (typical value)¹⁾

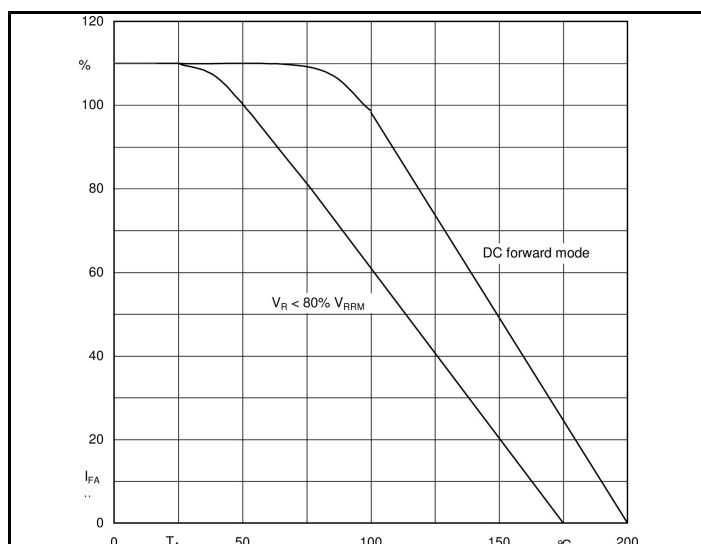


Fig. 2 Rated forward current vs. temp. of the terminals¹⁾

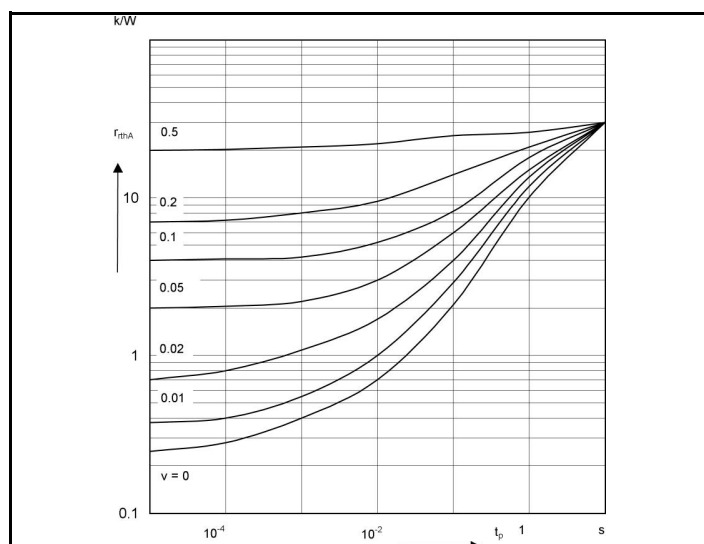


Fig. 3 Pulse thermal resistance vs. pulse duration¹⁾

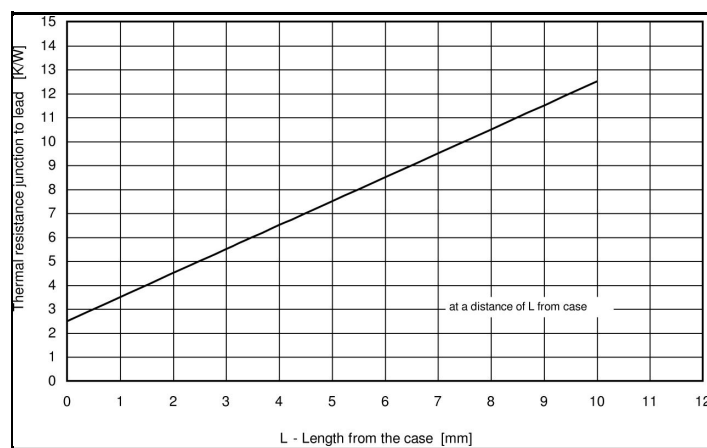


Fig. 4 Thermal resistance versus distance from case