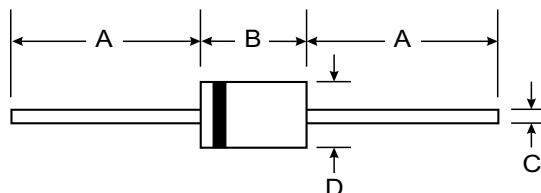


### Features

- Glass passivated
- Hermetically sealed axial leaded glass envelope
- Low reverse current
- High reverse voltage



### Mechanical Data

- Switched mode power supplies
- High-frequency inverter circuits

DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics

@ T<sub>A</sub> = 25°C unless otherwise specified

Parameter	Test Conditions	Type	Symbol	Value	Unit		
Reverse voltage =Repetitive peak reverse voltage		SF4001	V <sub>R</sub> =V <sub>R</sub> RRM	50	V		
		SF4002	V <sub>R</sub> =V <sub>R</sub> RRM	100	V		
		SF4003	V <sub>R</sub> =V <sub>R</sub> RRM	200	V		
		SF4004	V <sub>R</sub> =V <sub>R</sub> RRM	400	V		
		SF4005	V <sub>R</sub> =V <sub>R</sub> RRM	600	V		
		SF4006	V <sub>R</sub> =V <sub>R</sub> RRM	800	V		
		SF4007	V <sub>R</sub> =V <sub>R</sub> RRM	1000	V		
Peak forward surge current	t <sub>p</sub> =10 ms, half sinewave		I <sub>FSM</sub>	30	A		
Average forward current	Lead length l = 10 mm		I <sub>FAV</sub>	1	A		
Junction and storage temperature range			T <sub>j</sub> =T <sub>stg</sub>	-55...+175	°C		
Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> = 1A	SF4001–SF4004	V <sub>F</sub>			1	V
		SF4005–SF4007	V <sub>F</sub>			1.7	V
Reverse current	V <sub>R</sub> =V <sub>R</sub> RRM		I <sub>R</sub>			5	μA
	V <sub>R</sub> =V <sub>R</sub> RRM, T <sub>j</sub> =125°C		I <sub>R</sub>			50	μA
Reverse breakdown voltage	I <sub>R</sub> =100μA	SF4001	V <sub>(BR)R</sub>	50			V
		SF4002	V <sub>(BR)R</sub>	100			V
		SF4003	V <sub>(BR)R</sub>	200			V
		SF4004	V <sub>(BR)R</sub>	400			V
		SF4005	V <sub>(BR)R</sub>	600			V
		SF4006	V <sub>(BR)R</sub>	800			V
		SF4007	V <sub>(BR)R</sub>	1000			V
Reverse recovery time	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, i <sub>R</sub> =0.25A	SF4001–SF4004	t <sub>rr</sub>			50	ns
		SF4005–SF4007	t <sub>rr</sub>			75	ns

## Characteristics ( $T_j = 25^\circ\text{C}$ unless otherwise specified)

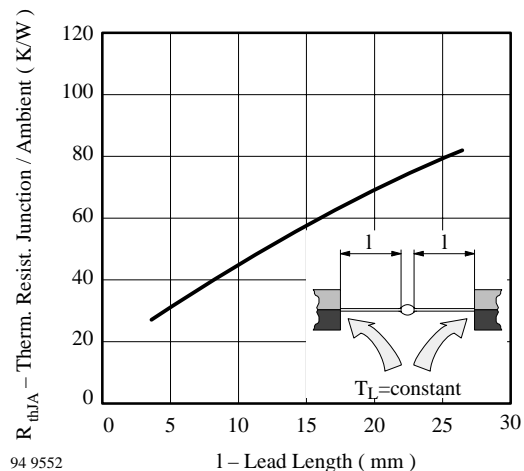


Figure 1. Max. Thermal Resistance vs. Lead Length

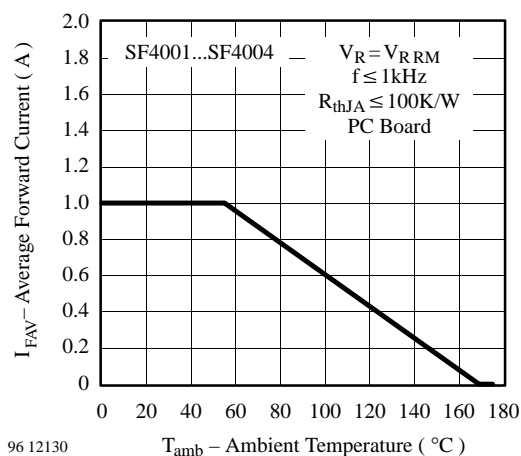


Figure 2. Max. Average Forward Current vs. Ambient Temperature

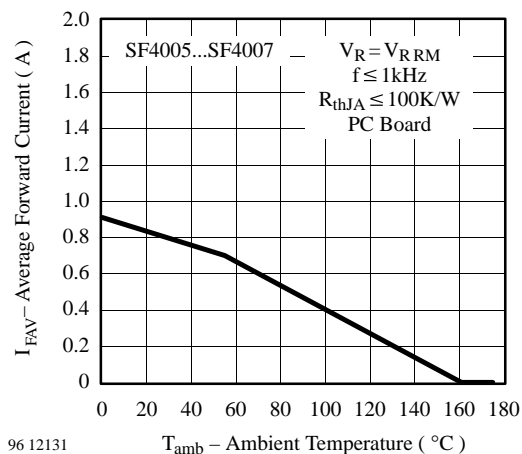


Figure 3. Max. Average Forward Current vs. Ambient Temperature

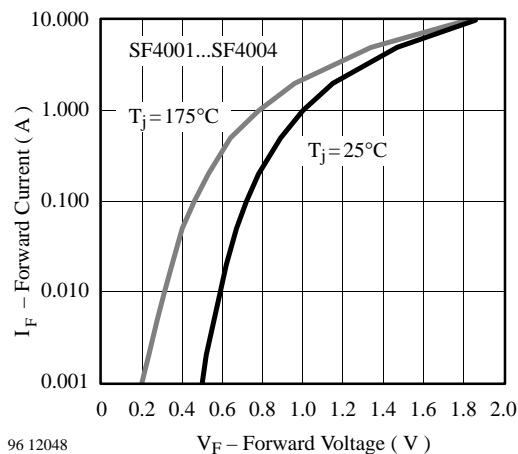


Figure 6. Max. Forward Current vs. Forward Voltage

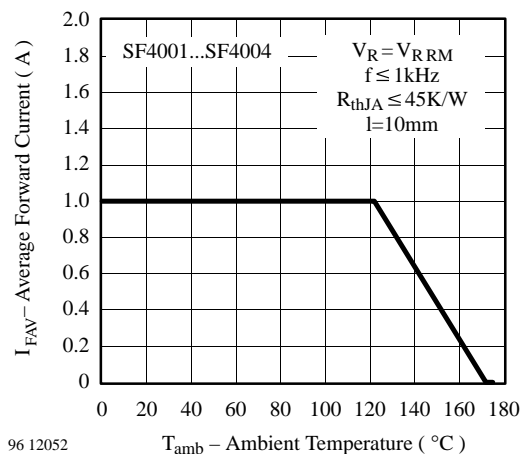


Figure 4. Max. Average Forward Current vs. Ambient Temperature

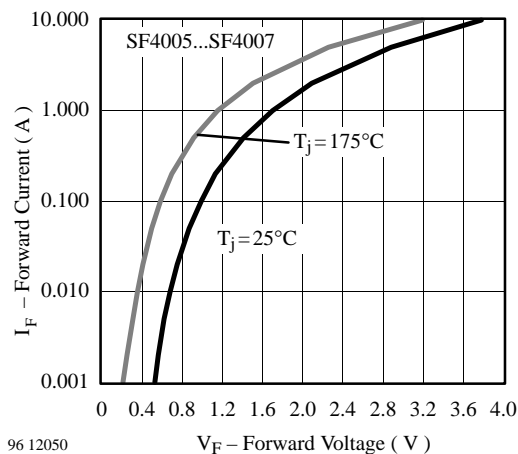


Figure 7. Max. Forward Current vs. Forward Voltage

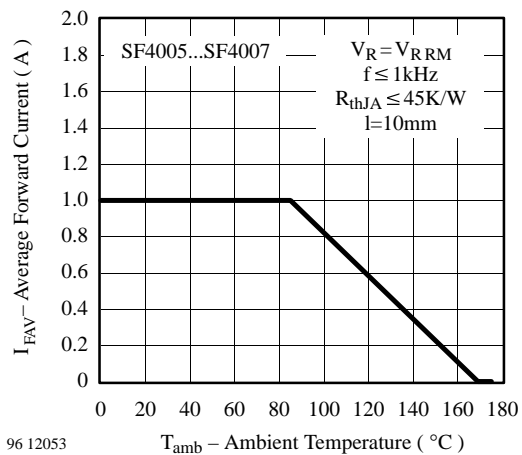


Figure 5. Max. Average Forward Current vs. Ambient Temperature

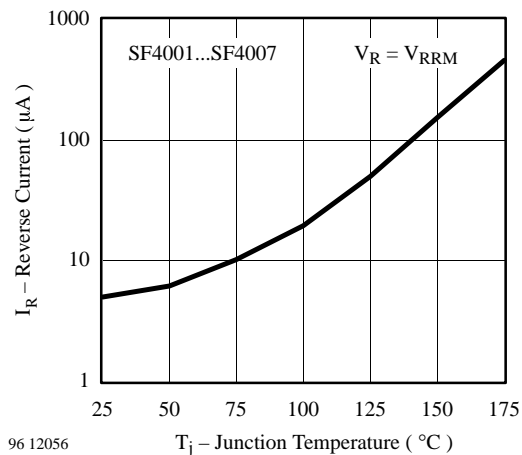


Figure 8. Max. Reverse Current vs. Junction Temperature