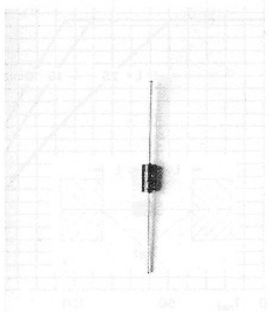
Rectifier Diodes

SK 3 G

Preliminary Data

V_{RSM} V_{RRM} V	I_{FRMS} (maximum values for continuous operation) 6,7 A I_{FAV} (sin. 180, T_{ref} = 105 °C, L = 10 mm) 4,3 A
100	**SK 3 G 01**
200	**SK 3 G 02**
400	**SK 3 G 04**
600	**SK 3 G 06**
800	**SK 3 G 08**
1000	**SK 3 G 10**
1200	**SK 3 G 12**

Symbol	Conditions	SK 3 G
I_{FAV}	T_{ref} = 130 °C; L = 10 mm; sin. 180 T_{amb} = 45 °C; sin. 180; R_{thja} = 60 °C/W	3 A 2,1 A
I_{FSM}	T_{vj} = 25 °C; 10 ms T_{vj} = 175 °C; 10 ms	200 A 150 A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms T_{vj} = 175 °C; 8,3 ... 10 ms	200 A^2s 110 A^2s
Q_{rr}	T_{vj} = 150 °C; $-\frac{di_F}{dt} = 10\ \frac{A}{\mu s}$; I_F = 10 A; V_R = 100 V; typ.	25 µC
I_R	T_{vj} = 25 °C; $V_R = V_{RRM}$ T_{vj} = 150 °C; $V_R = V_{RRM}$	4 µA 0,25 mA
V_F	T_{vj} = 25 °C; I_F = 3 A; max.	1,1 V
$V_{(TO)}$	T_{vj} = 175 °C	0,85 V
r_T	T_{vj} = 175 °C	30 mΩ
C_j	V_R = 0; f = 1 MHz; typ.	100 pF
R_{thjr}	L = 10 mm	14 °C/W
R_{thja}	p.c.b. 50 x 50 mm	60 °C/W
T_{vj}		− 40 ... + 175 °C
T_{stg}		− 55 ... + 175 °C
T_{solder}	max. 10 s, L = 9 mm	280 °C
a		5 · 9,81 m/s^2
w	approx.	1 g
Case		E 29



Features

- Axial lead diodes, taped
- Glass passivated silicon chip
- Void-free moulded plastic acc. to Underwriters Laboratory (UL) flammability classification 94 V-0
- Polarity: Band denotes cathode terminal
- Peak inverse voltage up to 1200 V
- High surge current of 200 A
- Available with formed leads on request

Typical Applications

- General purpose rectifier diodes for high quality requirement
- For printed circuit board mounting

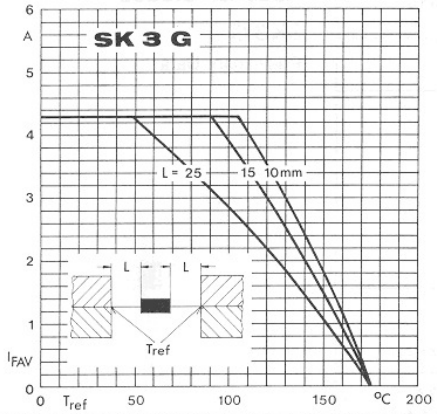


Fig. 14 Rated forward current vs. reference temp.

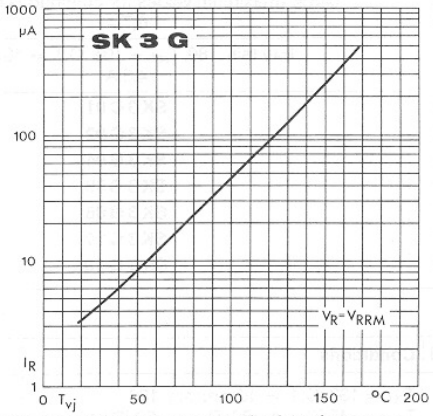


Fig. 15 Reverse current vs. virt. junction temp.

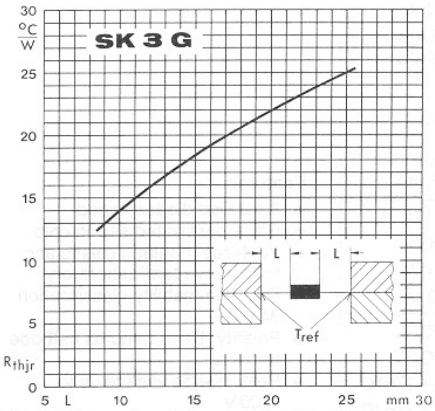


Fig. 16 Thermal resistance vs. lead length

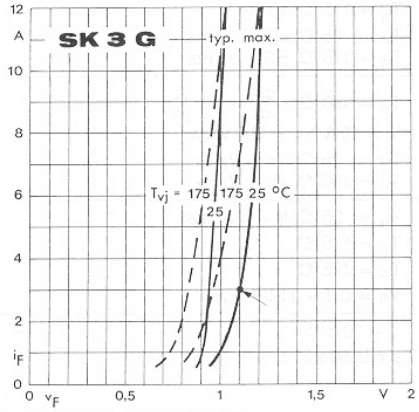


Fig. 6 Forward characteristics