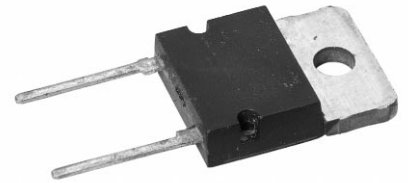


## Fast Recovery Rectifier Diodes <sup>1)</sup>

### SKR 67 F

Preliminary Data



$V_{RSM}$	I <sub>F RMS</sub> (maximum values for continuous operation)
$V_{RRM}$	
V	I <sub>FAV</sub> (sin. 180; T <sub>case</sub> = 85 °C; 50 Hz)
600	SKR 67F06

Symbol	Conditions	SKR67F	Units
I <sub>FAV</sub>	sin. 180; T <sub>case</sub> = 85 °C	67	A
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C; 10 ms	650	A
	T <sub>vj</sub> = 150 °C; 10 ms	580	A
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C; 8,3 ... 10 ms	2100	A <sup>2</sup> s
	T <sub>vj</sub> = 150 °C; 8,3 ... 10 ms	1700	A <sup>2</sup> s
I <sub>RRM</sub>	T <sub>vj</sub> = 25 °C } I <sub>F</sub> = 75 A	30	A
Q <sub>rr</sub>	T <sub>vj</sub> = 125 °C } di/dt = 800 A/μs	53	A
	T <sub>vj</sub> = 25 °C } typ.	2,5	μC
	T <sub>vj</sub> = 125 °C } V <sub>R</sub> = 300 V typ.	6	μC
	T <sub>vj</sub> = 25 °C } typ.	60	ns
I <sub>R</sub>	T <sub>vj</sub> = 25 °C; V <sub>R</sub> = V <sub>RRM</sub>	0,2	mA
	T <sub>vj</sub> = 125 °C; V <sub>R</sub> = V <sub>RRM</sub>	4	mA
V <sub>F</sub>	T <sub>vj</sub> = 25 °C; I <sub>F</sub> = 75 A max	1,7	V
V <sub>(TO)</sub>	T <sub>vj</sub> = 150 °C	0,9	V
r <sub>T</sub>	T <sub>vj</sub> = 150 °C	11	mΩ
R <sub>thjc</sub>		0,35	°C/W
R <sub>thch</sub>		0,25	°C/W
T <sub>vj</sub>		- 40 ... 150	°C
T <sub>stg</sub>		- 40 ... 150	°C
M <sub>1</sub>	to heatsink SI units US units	0,7 ... 1	Nm
		6,2 ... 8,8	lb.in.
w	approx	5	g
Case	→ page B 9 – 6	E 40	

#### Features

- Very short recovery times
- Soft recovery under all conditions
- 600 V reverse voltage
- Epoxy meets UL 94V-0 flammability classification

#### Typical Applications

- Inverse diode for power transistors
- Inverter, UPS
- Snubber and clamping diode

<sup>1)</sup> CAL (controlled axial lifetime) technology, patent No. DE 43 10 44

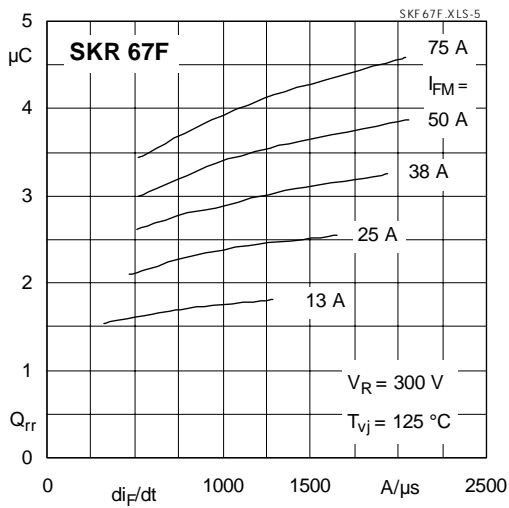


Fig. 5 Typ. recovered charge

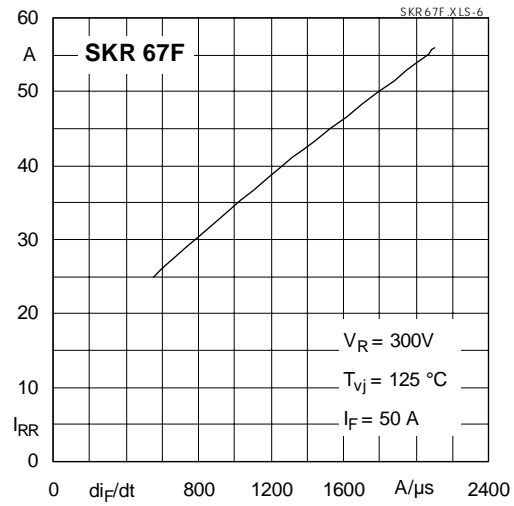


Fig. 6 Typ. peak reverse recovery current

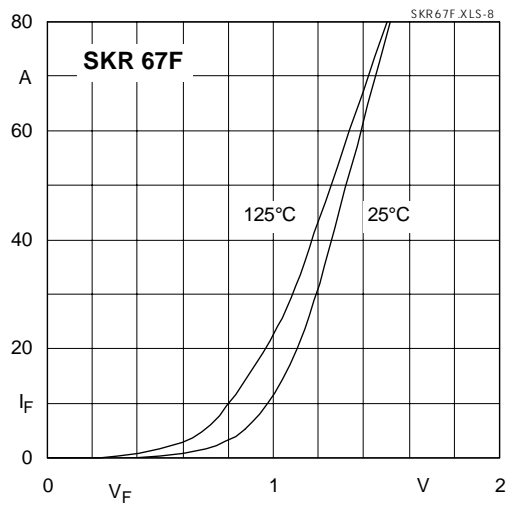


Fig. 8 Typ. forward characteristic

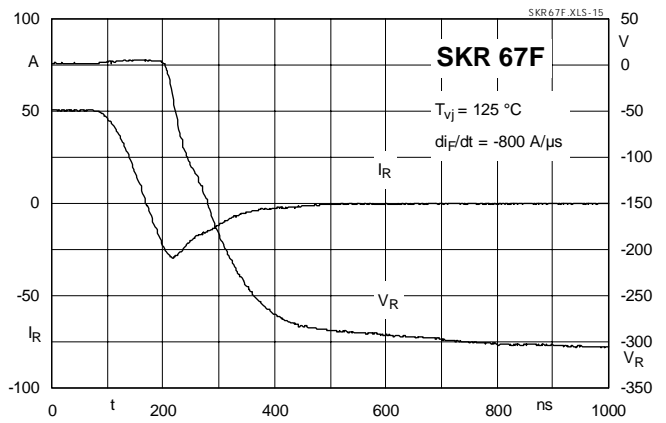
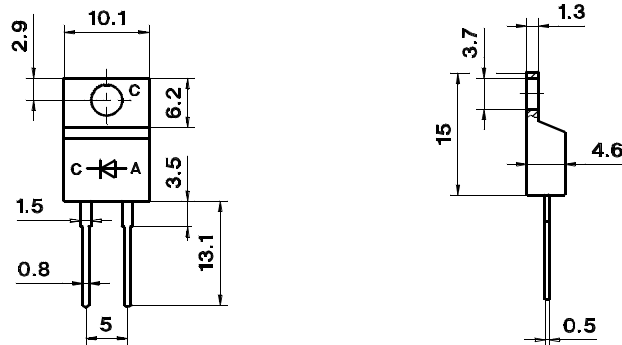


Fig. 15 Typ. reverse recovery characteristic

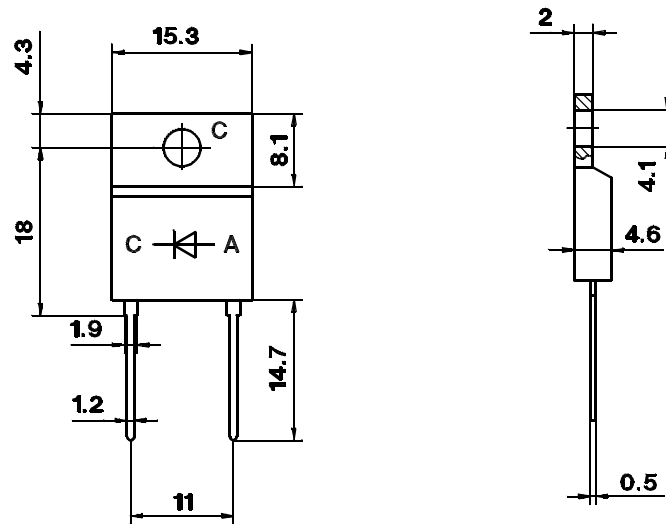
**SKR 20 F**

Case E 39  
TO-220 AC



**SKR 31 F**  
**SKR 48 F**

Case E 40  
TO-218



Dimensions in mm