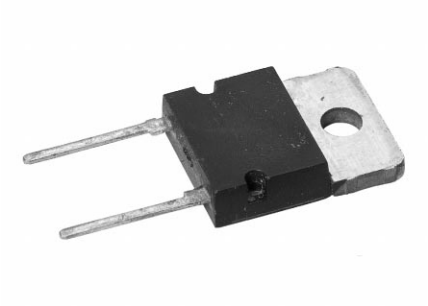
V_{RSM} V_{RRM} V	I_{FRMS} (maximum values for continuous operation) 74 A I_{FAV} (sin. 180; T_{case} = 85 °C; 50 Hz) 47 A
1500	**SKR 47F15**
1700	**SKR 47F17**

Fast Recovery Rectifier Diodes [1)]

SKR 47 F



Symbol	Conditions		SKR47F	Units
I_{FAV}	sin. 180; T_{case} = 85 °C		47	A
I_{FSM}	T_{vj} = 25 °C; 10 ms		500	A
	T_{vj} = 150 °C; 10 ms		450	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms		1250	A^2s
	T_{vj} = 150 °C; 8,3 ... 10 ms		1000	A^2s
I_{RRM}	T_{vj} = 25 °C	I_F = 50 A	30	A
	T_{vj} = 125 °C	di/dt = 800 A/µs	43	A
Q_{rr}	T_{vj} = 25 °C	typ.	7	µC
	T_{vj} = 125 °C	V_R = 600 V typ.	15	µC
t_{rr}	T_{vj} = 25 °C	typ.	120	ns
I_R	T_{vj} = 25 °C; V_R = V_{RRM}		0,2	mA
	T_{vj} = 125 °C; V_R = V_{RRM}		10	mA
V_F	T_{vj} = 25 °C; I_F = 50 A	max	2,7	V
$V_{(TO)}$	T_{vj} = 150 °C		1,5	V
r_T	T_{vj} = 150 °C		21	mΩ
R_{thjc}			0,35	°C/W
R_{thch}			0,25	°C/W
T_{vj}			– 40 ... 150	°C
T_{stg}			– 40 ... 150	°C
M_1	to heatsink	SI units	0,7 ... 1	Nm
		US units	6,2 ... 8,8	lb. in.
w	approx		5	g
Case	→ page B 9 – 6		E 40	

[1)] CAL (controlled axial lifetime) technology, patent No. DE 43 10 44

Features

- Very short recovery times
- Soft recovery under all conditions
- Up to 1700 V reverse voltage
- Epoxy meets UL 94V-0 flammability classification

Typical Applications

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

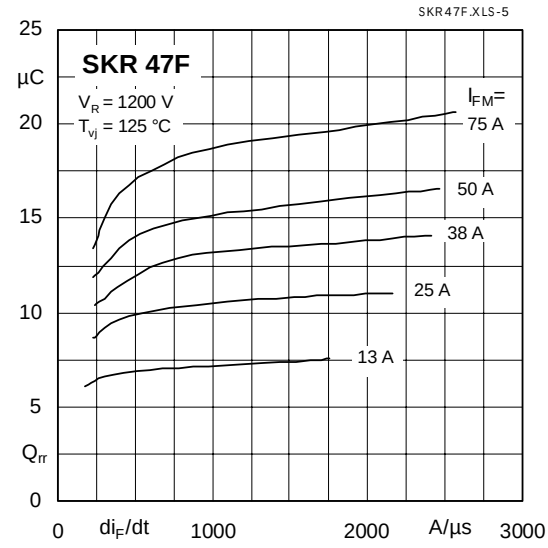


Fig. 5 Typ. recovered charge

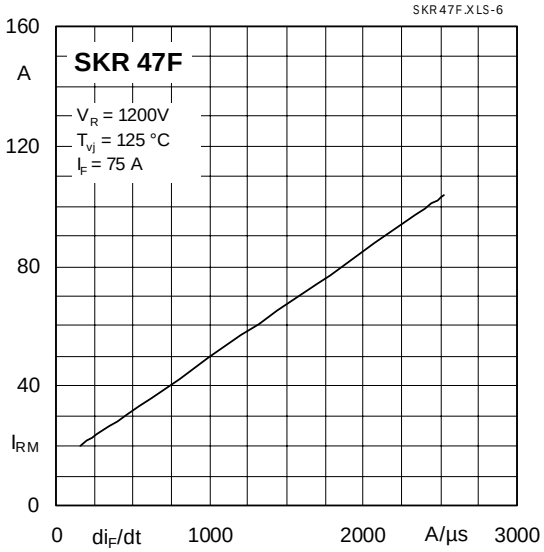


Fig. 6 Typ. peak reverse recovery current

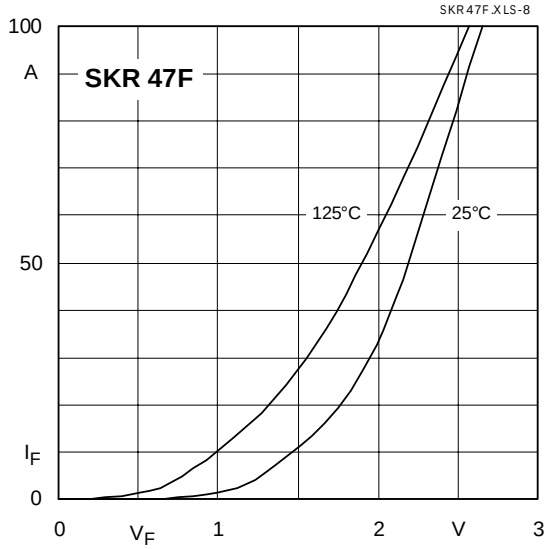


Fig. 8 Typ. forward characteristic

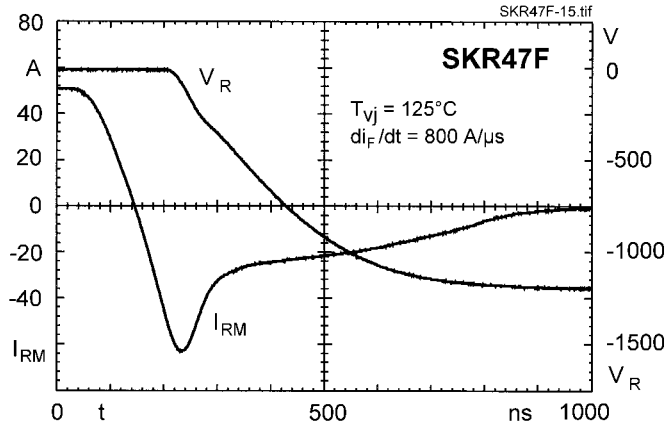
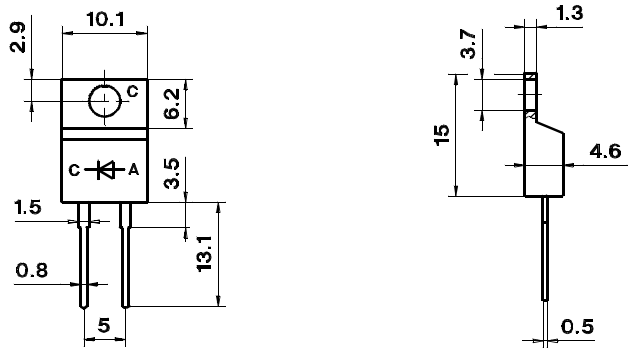


Fig. 15 Typ. reverse recovery characteristic

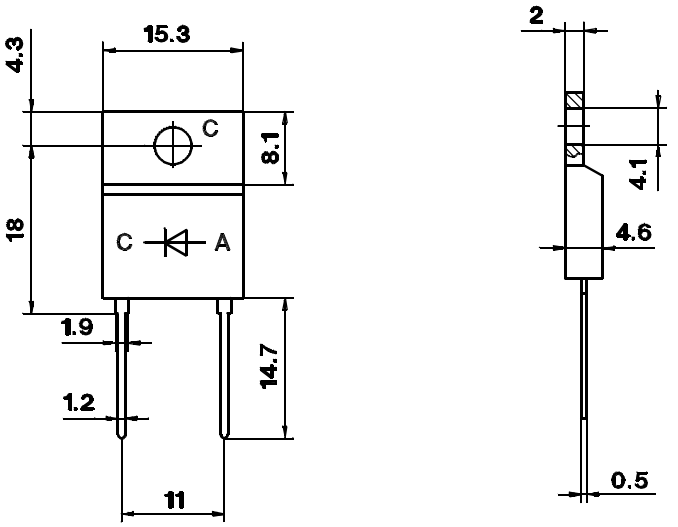
SKR 20 F

Case E 39
TO-220 AC



SKR 31 F
SKR 48 F

Case E 40
TO-218



Dimensions in mm