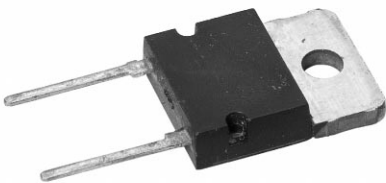


V_{RSM} V_{RRM} V	I_{FRMS} (maximum values for continuous operation) 74 A
	I_{FAV} (sin. 180; $T_{case} = 85\text{ °C}$; 50 Hz) 47 A
1500	SKR 47F15
1700	SKR 47F17

Fast Recovery Rectifier Diodes ¹⁾

SKR 47 F

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



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

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

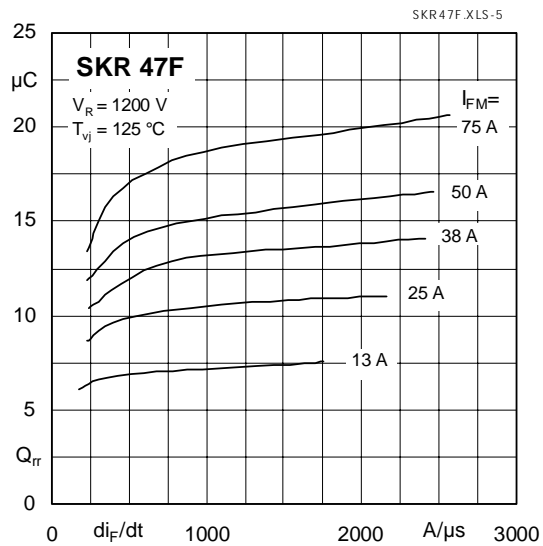


Fig. 5 Typ. recovered charge

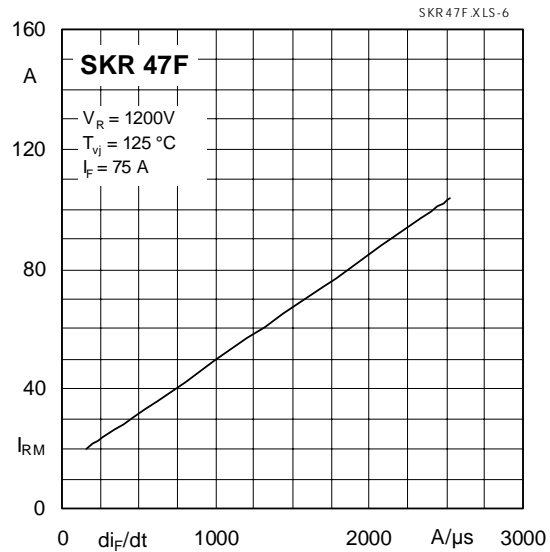


Fig. 6 Typ. peak reverse recovery current

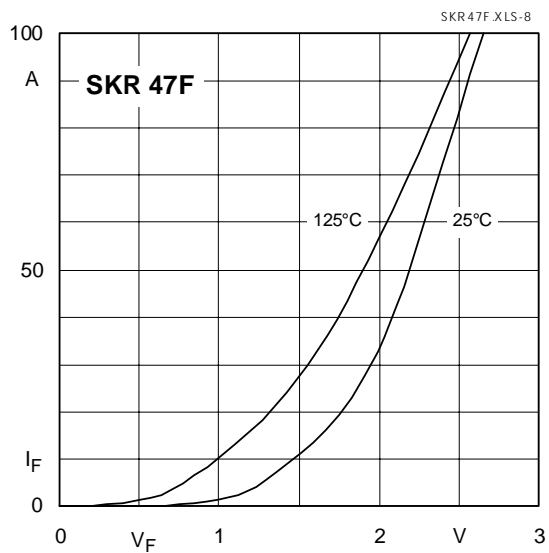


Fig. 8 Typ. forward characteristic

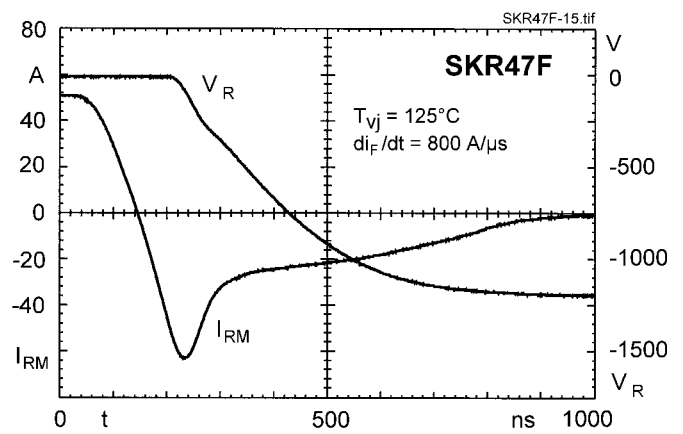
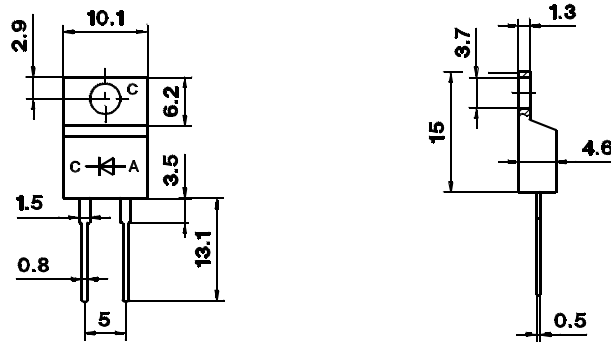


Fig. 15 Typ. reverse recovery characteristic

SKR 20 F

Case E 39

TO-220 AC



SKR 31 F

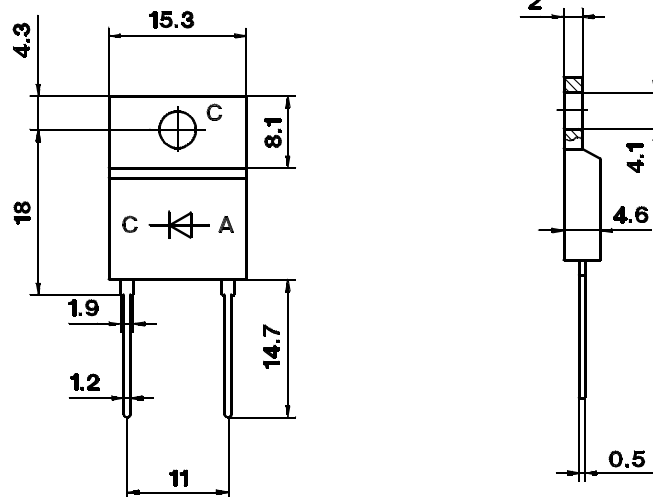
SKR 47 F

SKR 48 F

SKR 67 F

Case E 40

TO-218



Dimensions in mm