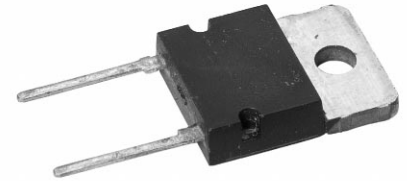


$V_{RSM}$ $V_{RRM}$	$I_{FRMS}$ (maximum values for continuous operation) 74 A
V	$I_{FAV}$ (sin. 180; $T_{case} = 85\text{ °C}$ ; 50 Hz) 47 A
1500	<b>SKR 47F15</b>
1700	<b>SKR 47F17</b>

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

### 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	$A^2s$
	$T_{vj} = 150\text{ °C}$ ; 8,3 ... 10 ms	1000	$A^2s$
$I_{RRM}$	$T_{vj} = 25\text{ °C}$ } $I_F = 50\text{ A}$ $T_{vj} = 125\text{ °C}$ } $di/dt = 800\text{ A}/\mu s$	30	A
		43	A
$Q_{rr}$	$T_{vj} = 25\text{ °C}$ } $V_R = 600\text{ V}$ typ. $T_{vj} = 125\text{ °C}$ } $V_R = 600\text{ V}$ typ.	7	$\mu C$
		15	$\mu C$
$t_{rr}$	$T_{vj} = 25\text{ °C}$ } 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	$m\Omega$
$R_{thjc}$		0,35	$^{\circ}C/W$
$R_{thch}$		0,25	$^{\circ}C/W$
$T_{vj}$		- 40 ... 150	$^{\circ}C$
$T_{stg}$		- 40 ... 150	$^{\circ}C$
$M_1$	to heatsink	SI units	0,7 ... 1
		US units	6,2 ... 8,8
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

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

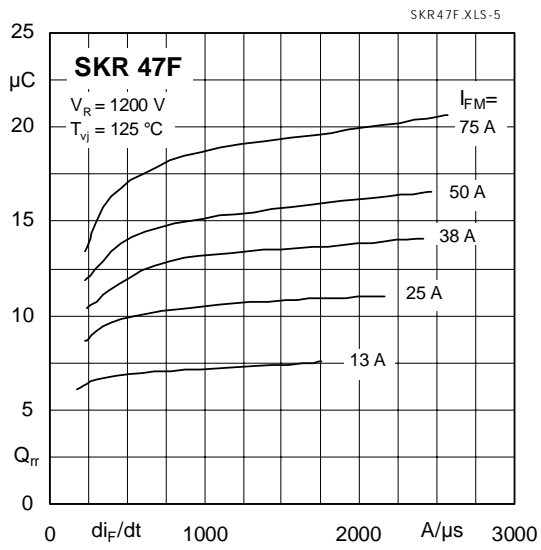


Fig. 5 Typ. recovered charge

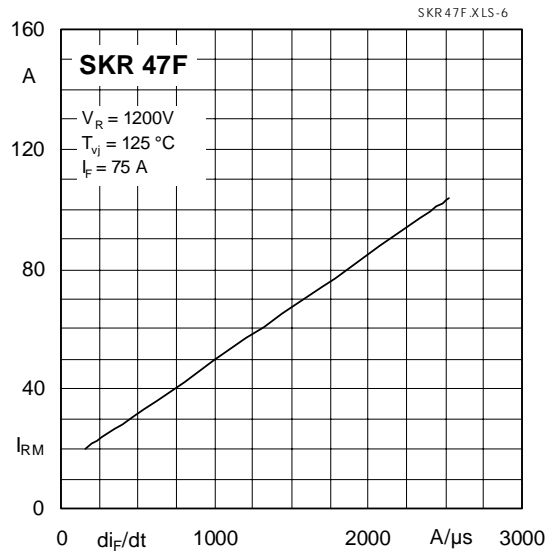


Fig. 6 Typ. peak reverse recovery current

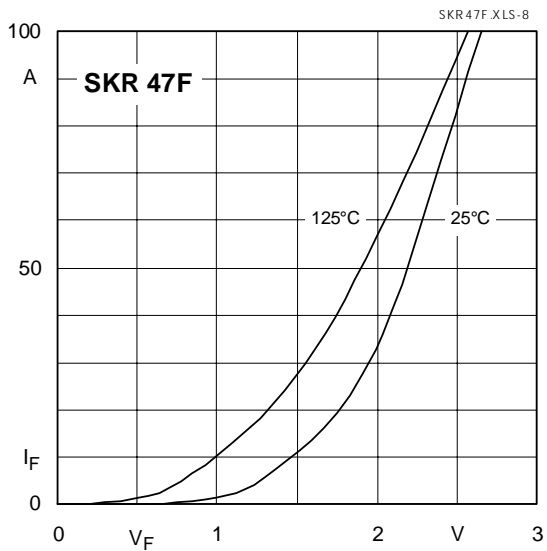


Fig. 8 Typ. forward characteristic

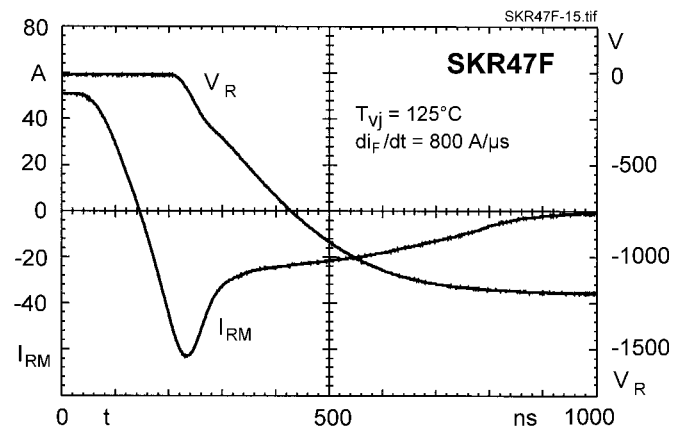
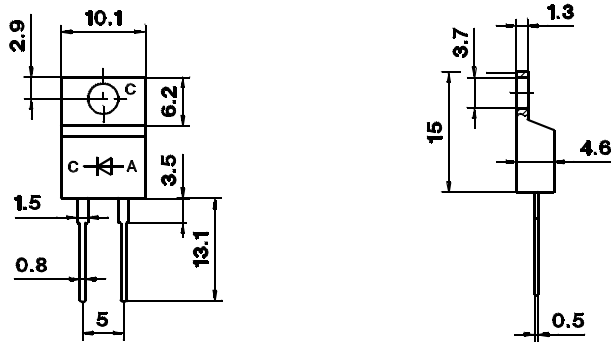


Fig. 15 Typ. reverse recovery characteristic

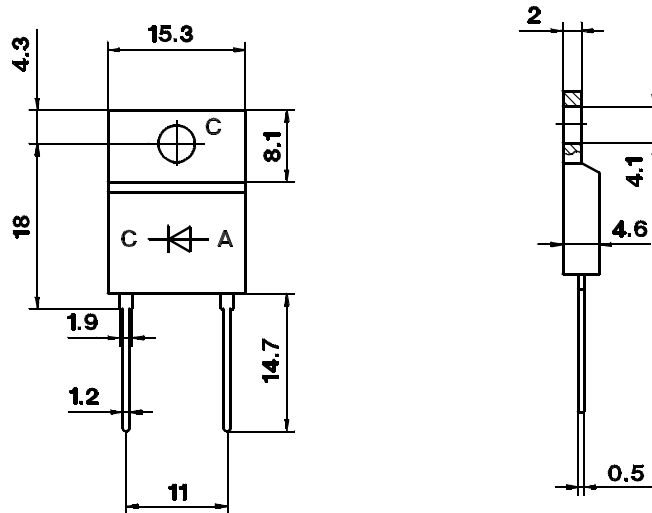
**SKR 20 F**

Case E 39  
TO-220 AC



**SKR 31 F**  
**SKR 47 F**  
**SKR 48 F**  
**SKR 67 F**

Case E 40  
TO-218



Dimensions in mm