# **SKR 2F50**



## **Stud Diode**

# Fast Recovery Rectifier Diode

#### **SKR 2F50**

#### **Features**

- Small recovered charge
- Soft recovery
- Up to 1000 V reverse voltage
- Hermetic metal case with glass insulator
- Threaded stud ISO M6 or 1/4-28 UNF
- · SKR: cathode to stud

## **Typical Applications**

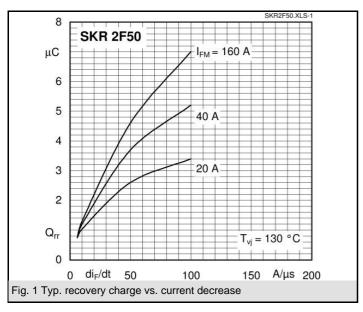
- Inverse diode for power transistor, GTO thyristor, asymmetric thyristor
- SMPS, inverters, choppers
- For severe ambient conditions

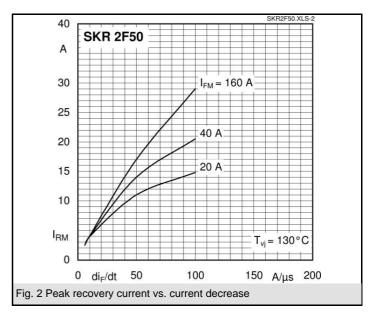
V <sub>RSM</sub>	$V_{RRM}$	I <sub>FRMS</sub> = 100 A (maximum value for continuous operation)	
V	V	I <sub>FAV</sub> = 50 A (sin. 180; 5000 Hz; T <sub>c</sub> = 95 °C)	
400	400	SKR 2F50/04	
400	400	SKR 2F50/04UNF	
600	600	SKR 2F50/06	
600	600	SKR 2F50/06UNF	
800	800	SKR 2F50/08	
800	800	SKR 2F50/08UNF	
1000	1000	SKR 2F50/10	
1000	1000	SKR 2F50/10UNF	

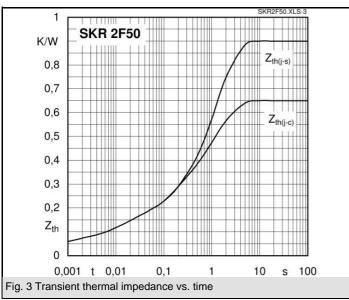
Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180; T <sub>c</sub> = 85 (100) °C	57 (46)	Α
$I_{FAV}$	K3; T <sub>a</sub> = 45 °C; sin. 180; 5000 Hz	17	
I <sub>FSM</sub>	T <sub>vi</sub> = 25 °C; 10 ms	800	Α
	$T_{vj} = 150 ^{\circ}\text{C}; 10 \text{ms}$	670	Α
i²t	$T_{vj} = 25 ^{\circ}\text{C}; 8,3 \dots 10 \text{ms}$	3200	A²s
	$T_{vj} = 150 ^{\circ}\text{C}; 8,3 \dots 10 \text{ms}$	2200	A²s
V <sub>F</sub>	T <sub>vi</sub> = 25 °C; I <sub>F</sub> = 50 A	max. 1,8	V
$V_{(TO)}$	T <sub>vi</sub> = 150 °C	max. 1,2	V
r <sub>T</sub>	T <sub>vi</sub> = 150 °C	max. 4	$m\Omega$
$I_{RD}$	$T_{vj} = 25 ^{\circ}\text{C};  V_{RD} = V_{RRM}$	max. 0,4	mA
$I_{RD}$	$T_{vj} = 130^{\circ}C, V_{RD} = V_{RRM}$	max. 50	mA
Q <sub>rr</sub>	T <sub>vi</sub> = 130 °C, I <sub>F</sub> = 100 A,	3	μC
I <sub>RM</sub>	$-di/dt = 30 \text{ A/}\mu\text{s}, \text{ V}_{\text{R}} = 30 \text{ V}$	10	Α
t <sub>rr</sub>		600	ns
E <sub>rr</sub>		-	mJ
R <sub>th(j-c)</sub>		0,65	K/W
R <sub>th(c-s)</sub>		0,25	K/W
T <sub>vj</sub>		- 40 <b>+</b> 150	°C
T <sub>stg</sub>		- 55 <b>+</b> 150	°C
V <sub>isol</sub>		-	V~
M <sub>s</sub>	to heatsink	2,5	Nm
а		5 * 9,81	m/s²
m	approx.	20	g
Case		E 10	

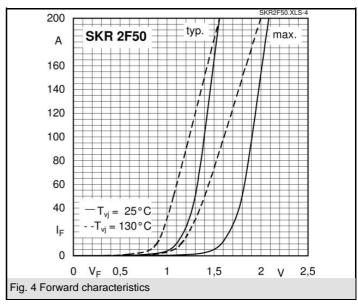


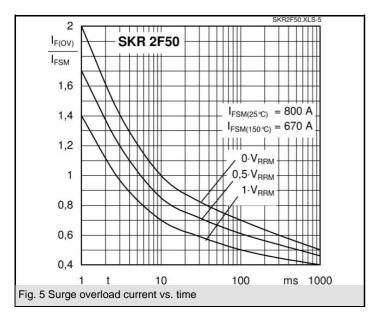
## **SKR 2F50**

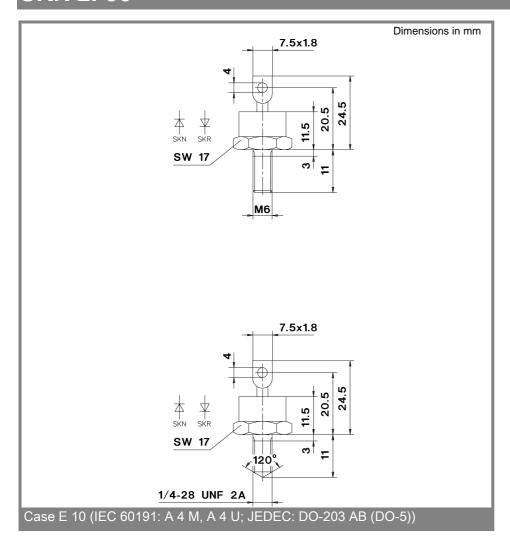












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