



Stud Diode

Fast Recovery Rectifier Diode

SKR 2F50

Features

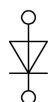
- Small recovered charge
- Soft recovery
- Up to 1000 V reverse voltage
- Hermetic metal case with glass insulator
- Threaded stud ISO M6 or 1/4-28 UNF
- SKR: cathode to stud

Typical Applications*

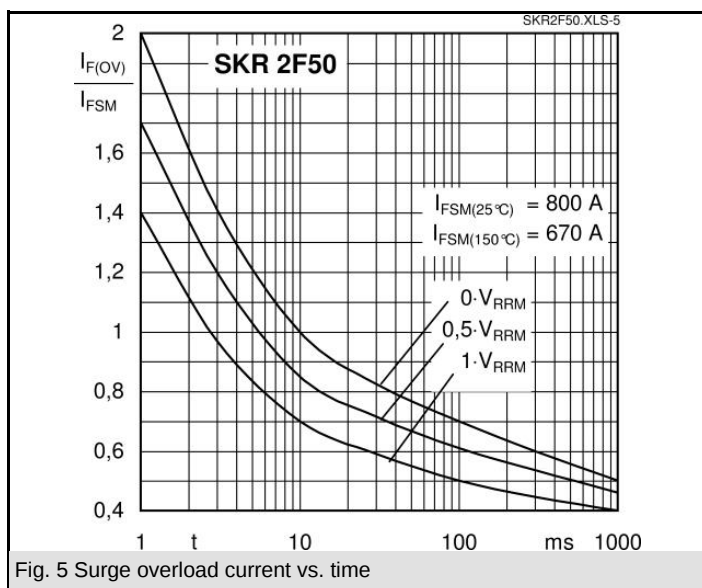
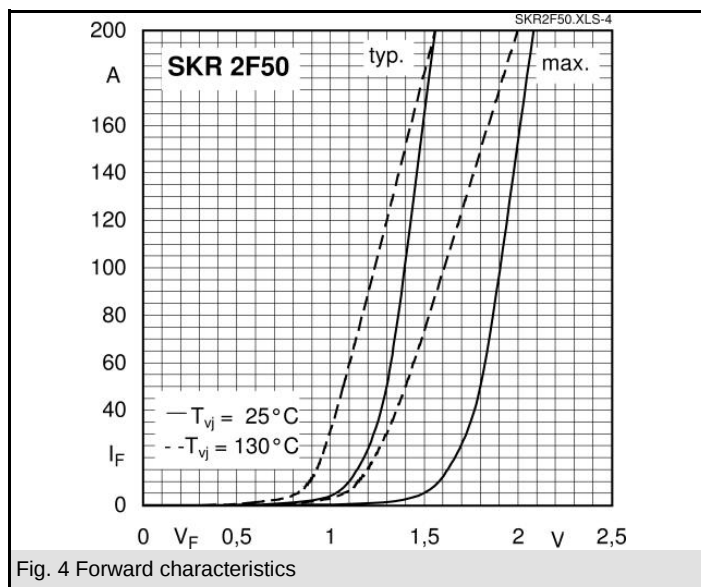
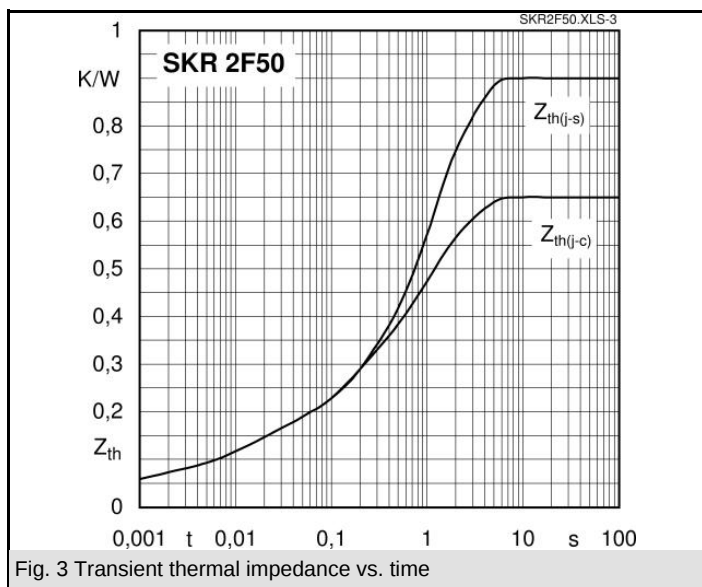
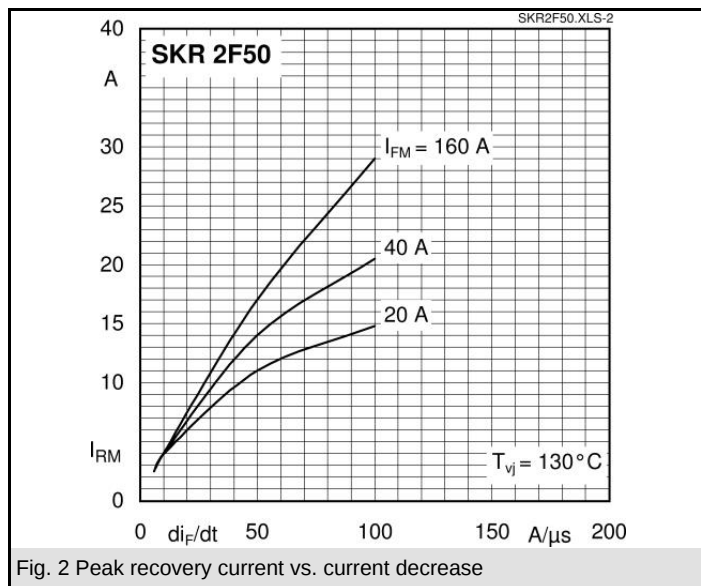
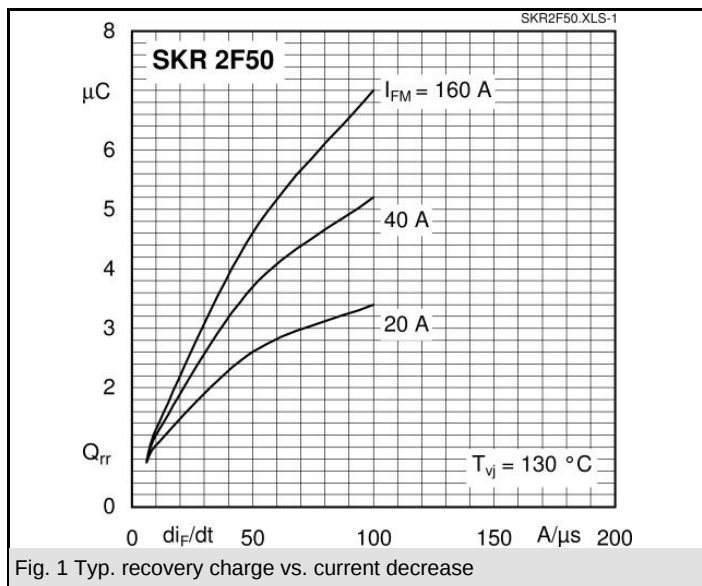
- Inverse diode for power transistor, GTO thyristor, asymmetric thyristor
- SMPS, inverters, choppers
- For severe ambient conditions

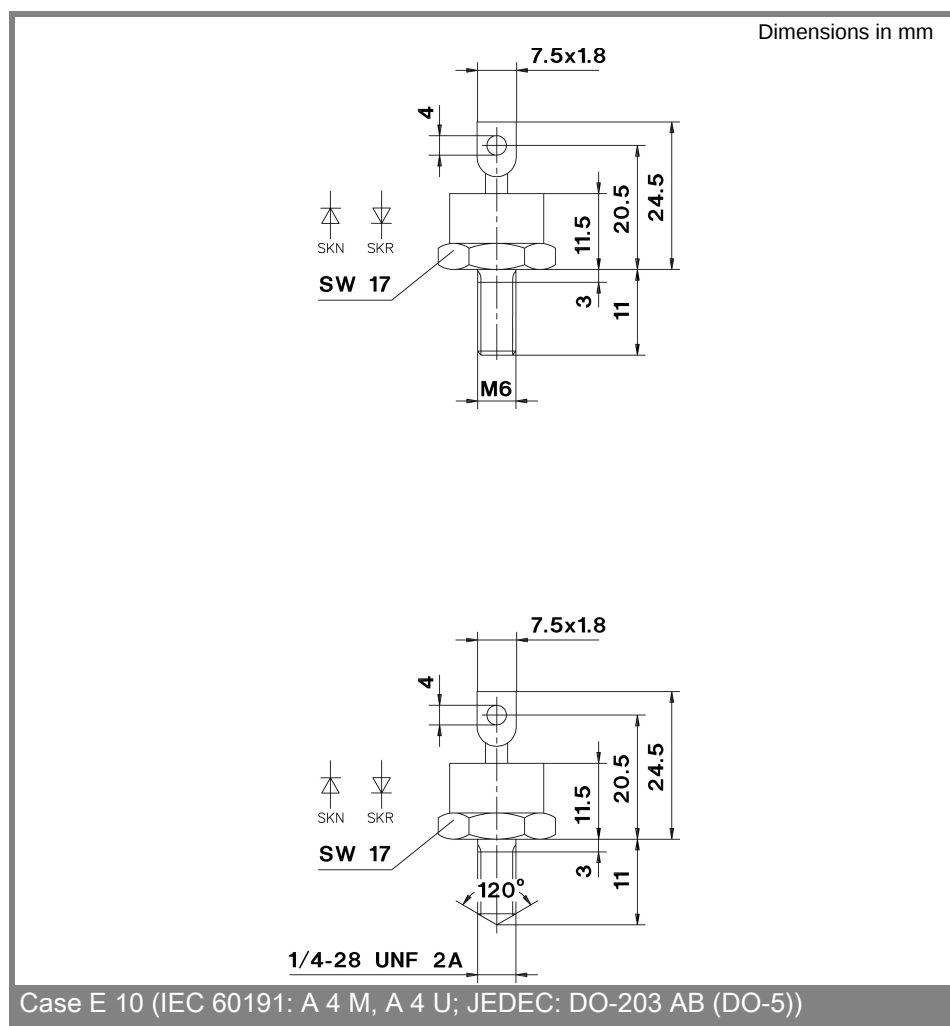
V_{RSM} V	V_{RRM} V	$I_{FRMS} = 100$ A (maximum value for continuous operation) $I_{FAV} = 50$ A (sin. 180; 5000 Hz; $T_c = 95$ °C)		
400	400	SKR 2F50/04		
400	400	SKR 2F50/04UNF		
600	600	SKR 2F50/06		
600	600	SKR 2F50/06UNF		
800	800	SKR 2F50/08		
800	800	SKR 2F50/08UNF		
1000	1000	SKR 2F50/10		
1000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

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; $T_c = 85$ (100) °C	57 (46)	A
I_{FAV}	K3; $T_a = 45$ °C; sin. 180; 5000 Hz	17	
I_{FSM}	$T_{vj} = 25$ °C; 10 ms	800	A
	$T_{vj} = 150$ °C; 10 ms	670	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms	3200	A²s
	$T_{vj} = 150$ °C; 8,3 ... 10 ms	2200	A²s
V_F	$T_{vj} = 25$ °C; $I_F = 50$ A	max. 1,8	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 1,2	V
r_T	$T_{vj} = 150$ °C	max. 4	mΩ
I_{RD}	$T_{vj} = 25$ °C; $V_{RD} = V_{RRM}$	max. 0,4	mA
I_{RD}	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}$	max. 50	mA
Q_{rr}	$T_{vj} = 130$ °C; $I_F = 100$ A,	3	μC
I_{RM}	$-di/dt = 30$ A/μs; $V_R = 30$ V	10	A
t_{rr}		600	ns
E_{rr}		-	mJ
$R_{th(j-c)}$		0,65	K/W
$R_{th(c-s)}$		0,25	K/W
T_{vj}		- 40 ... + 150	°C
T_{stg}		- 55 ... + 150	°C
V_{isol}		-	V~
M_s	to heatsink	2,5	Nm
a		5 * 9,81	m/s²
m	approx.	20	g
Case		E 10	



SKR





* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.