

# SKR 2F50



## Stud Diode

## Fast Recovery Rectifier Diode

### SKR 2F50

### Features

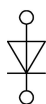
- Small recovered charge
- Soft recovery
- Up to 1000 V reverse voltage
- Hermetic metal case with glass insulator
- Threaded stud ISO M6 or 1/4-28 UNF
- SKR: cathode to stud

### Typical Applications\*

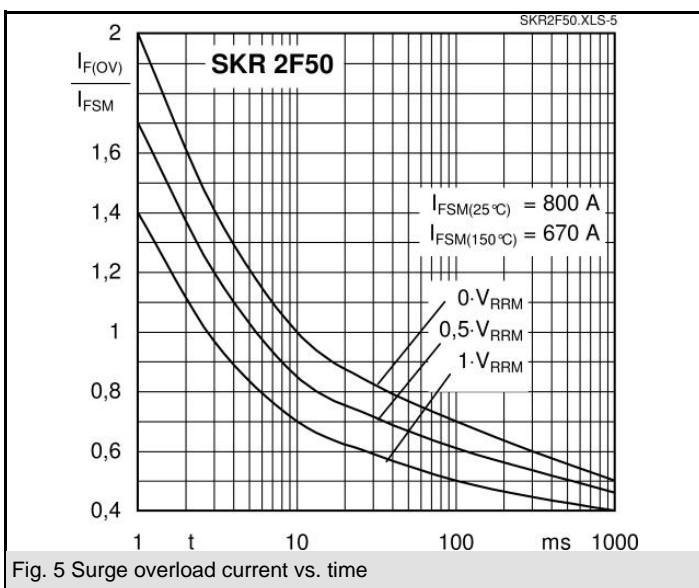
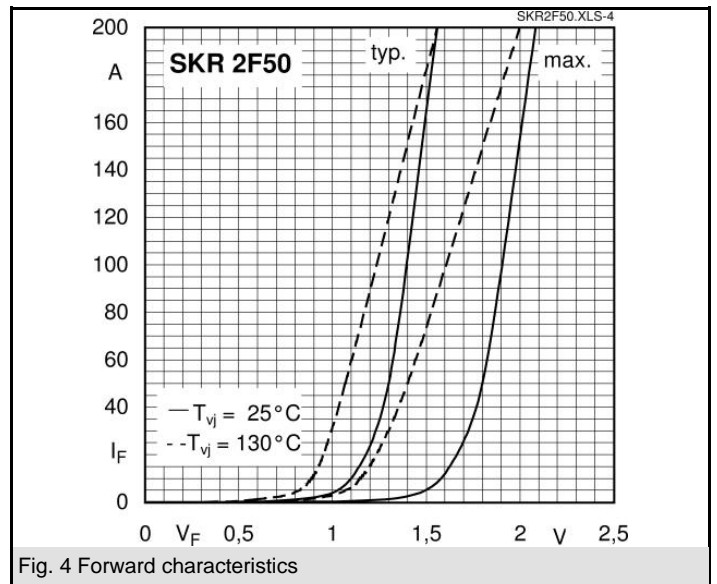
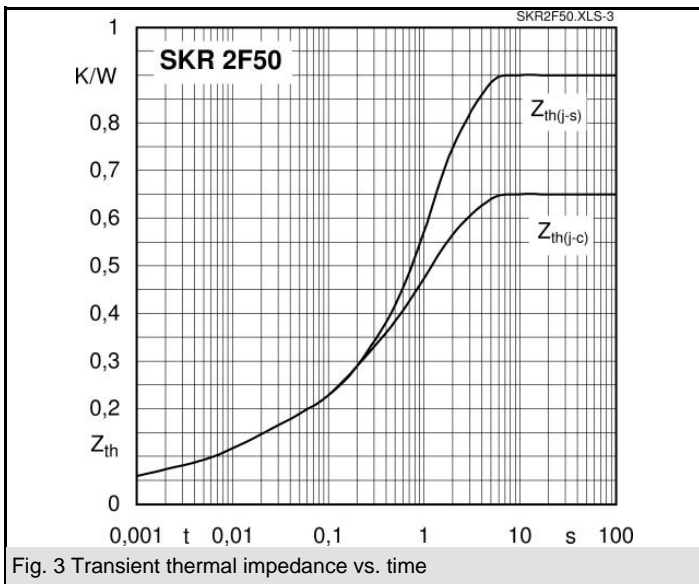
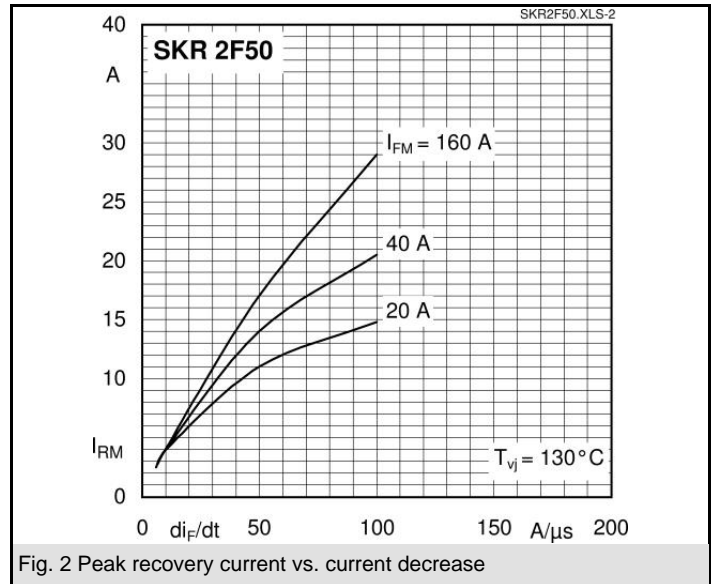
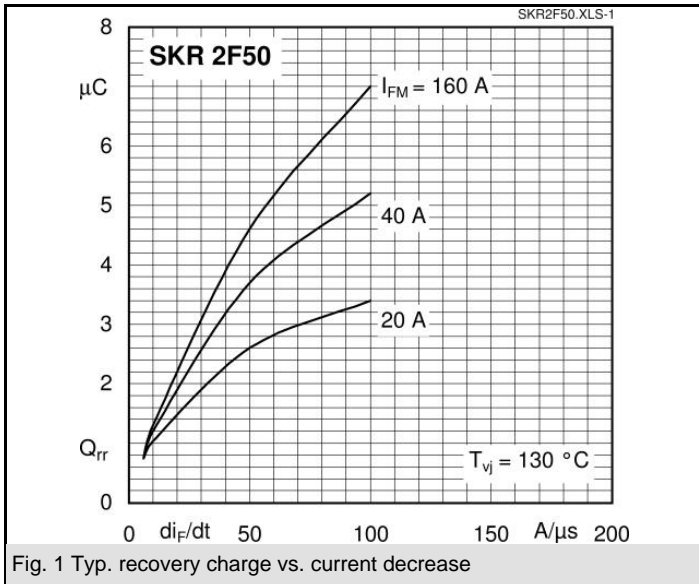
- Inverse diode for power transistor, GTO thyristor, asymmetric thyristor
- SMPS, inverters, choppers
- For severe ambient conditions

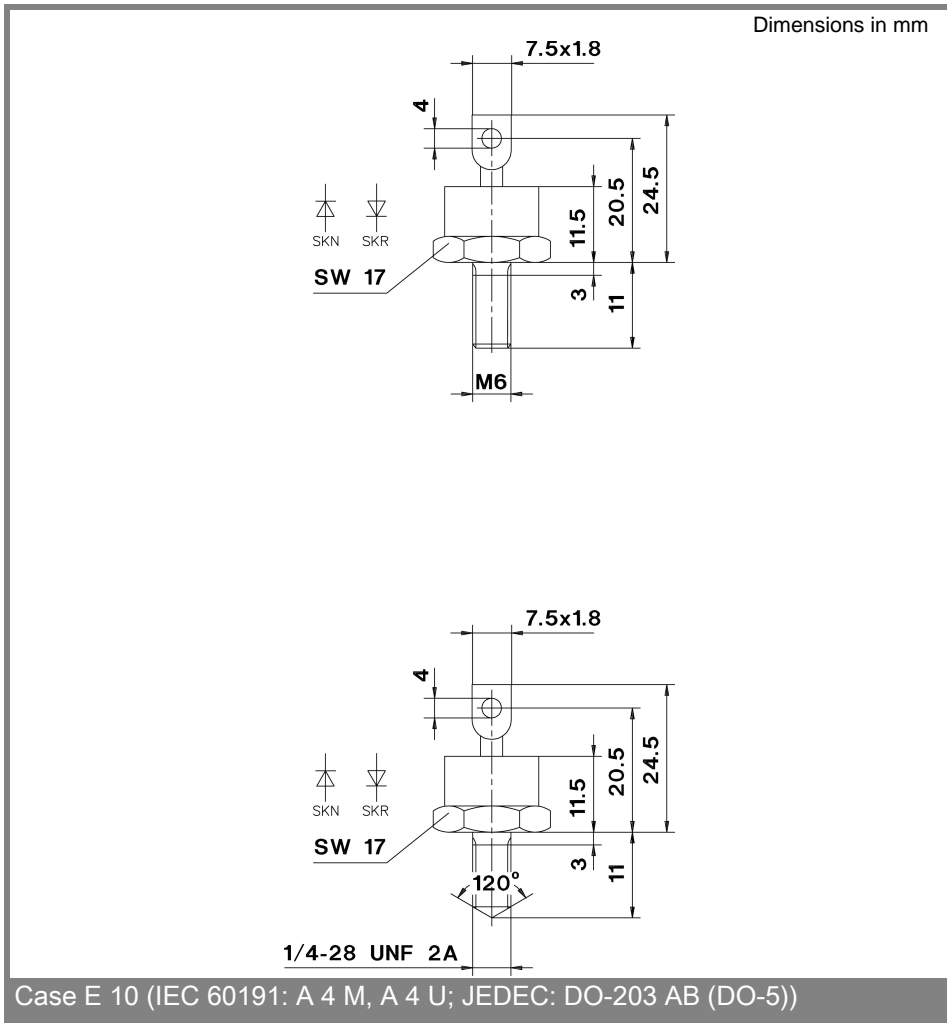
$V_{RSM}$ V	$V_{RRM}$ V	$I_{FRMS} = 100$ A (maximum value for continuous operation) $I_{FAV} = 50$ A (sin. 180; 5000 Hz; $T_c = 95$ °C)	
400	400	SKR 2F50/04	
400	400	SKR 2F50/04UNF	
600	600	SKR 2F50/06	
600	600	SKR 2F50/06UNF	
800	800	SKR 2F50/08	
800	800	SKR 2F50/08UNF	
1000	1000	SKR 2F50/10	
1000	1000	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	A <sup>2</sup> s
	$T_{vj} = 150$ °C; 8,3 ... 10 ms	2200	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °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/s <sup>2</sup>
$m$	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.