SKN 136F

Stud Diode

Fast Recovery Rectifier Diode

SKN 136F

SKR 136F

Features

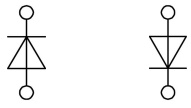
- Small recovered charge
- Soft recovery
- Hermetic metal case with glass insulator
- Threaded stud M12
- SKN: anode to stud; SKR: cathode to stud

Typical Applications

- Inverse diode for GTO and asymmetric thyristor
- Inverters and choppers
- A.C. motor control
- Uniterruptible power supplies (UPS)

V_{RSM} V	V_{RRM} V	I_{FRMS} = 260 A (maximum value for continuous operation) I_{FAV} = 135 A (sin. 180; 1000 Hz; T_c = 100 °C)		
800	800	SKN 136F08	SKR 136F08	
1000	1000	SKN 136F10	SKR 136F10	
1200	1200	SKN 136F12	SKR 136F12	

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 85 (100) °C	160 (135)	A
I_{FAV}	K1,1F; T_a = 35 °C; sin. 180; 1000 Hz	110	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	2500	A
	T_{vj} = 150 °C; 10 ms	2100	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	31000	A²s
	T_{vj} = 150 °C; 8,3 ... 10 ms	22000	A²s
V_F	T_{vj} = 25 °C; I_F = 300 A	max. 1,95	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 1,1	V
r_T	T_{vj} = 150 °C	max. 2,3	mΩ
I_{RD}	T_{vj} = 25 °C; V_{RD} = V_{RRM}	max. 1	mA
I_{RD}	T_{vj} = 150 °C; V_{RD} = V_{RRM}	max. 100	mA
Q_{rr}	T_{vj} = 150 °C, I_F = 100 A,	50	µC
I_{RM}	-di/dt = 100 A/µs, V_R = 400 V	53	A
t_{rr}		1900	ns
E_{rr}		-	mJ
$R_{th(j-c)}$		0,2	K/W
$R_{th(c-s)}$		0,08	K/W
T_{vj}		- 40 ... + 150	°C
T_{stg}		- 55 ... + 150	°C
V_{isol}		-	V~
M_s	to heatsink	10	Nm
a		5 * 9,81	m/s²
m	approx.	100	g
Case		E 31	



SKN SKR

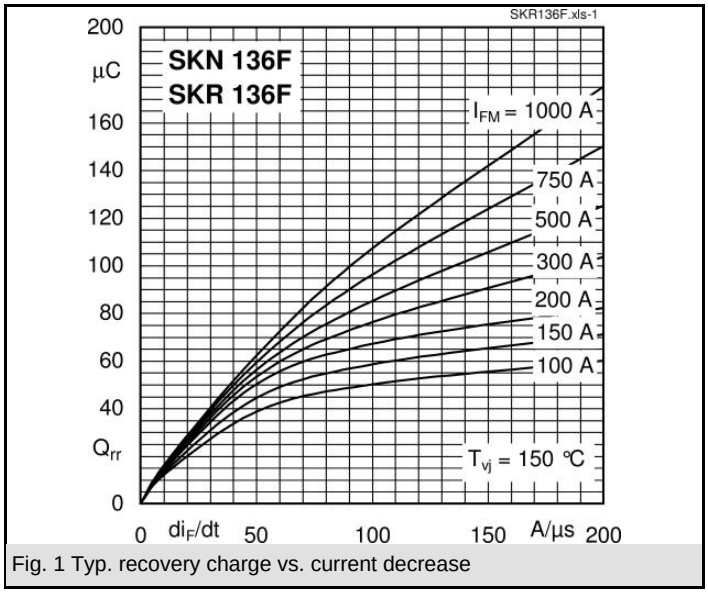


Fig. 1 Typ. recovery charge vs. current decrease

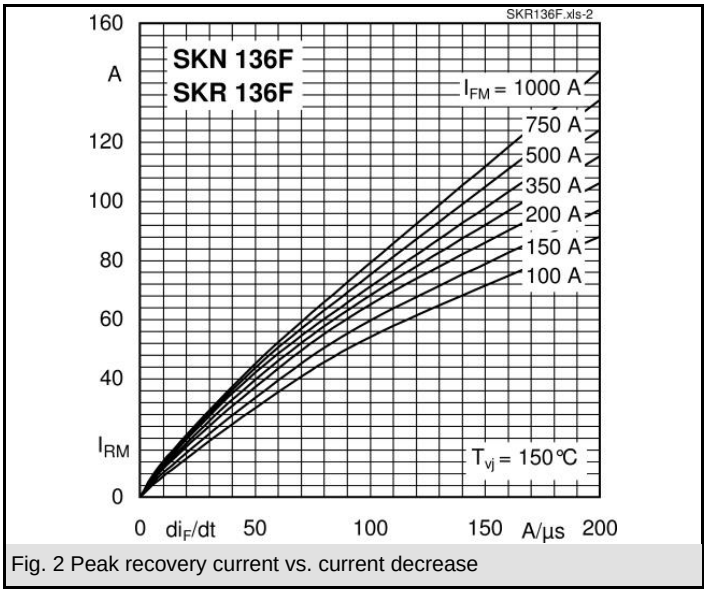


Fig. 2 Peak recovery current vs. current decrease

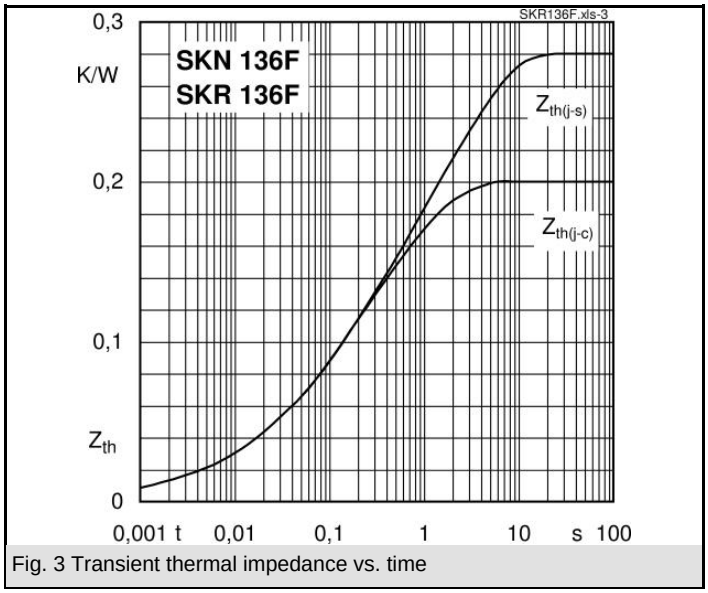


Fig. 3 Transient thermal impedance vs. time

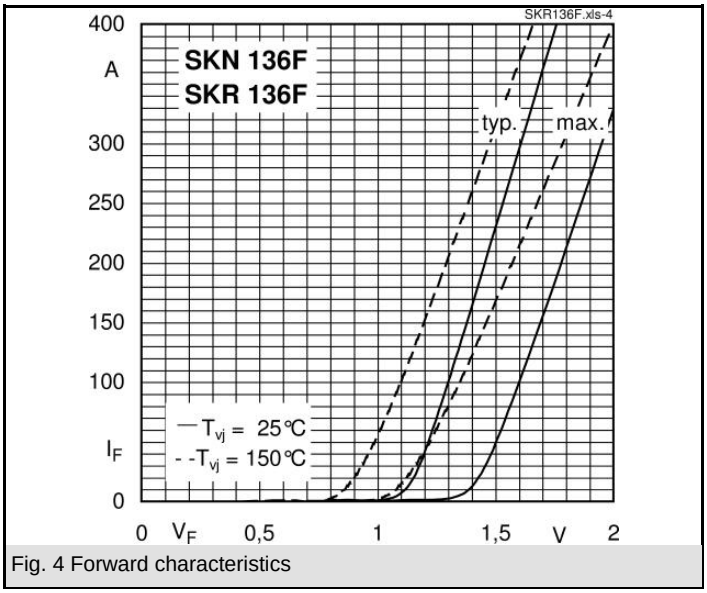


Fig. 4 Forward characteristics

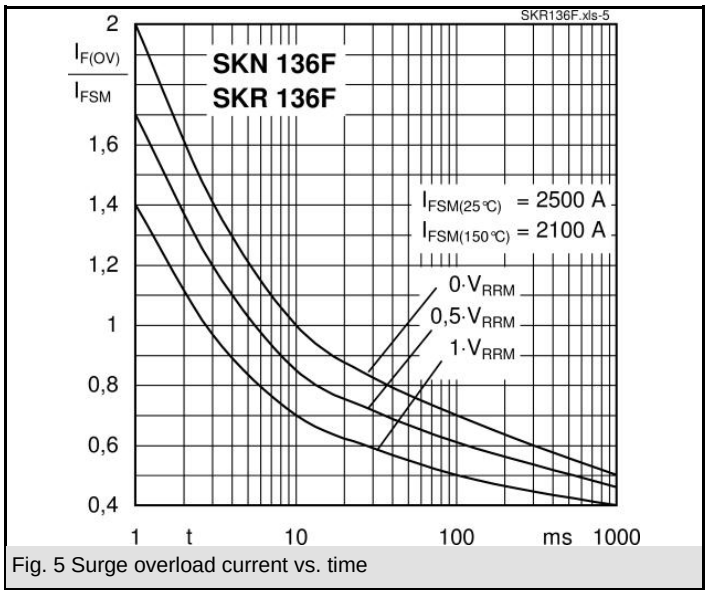
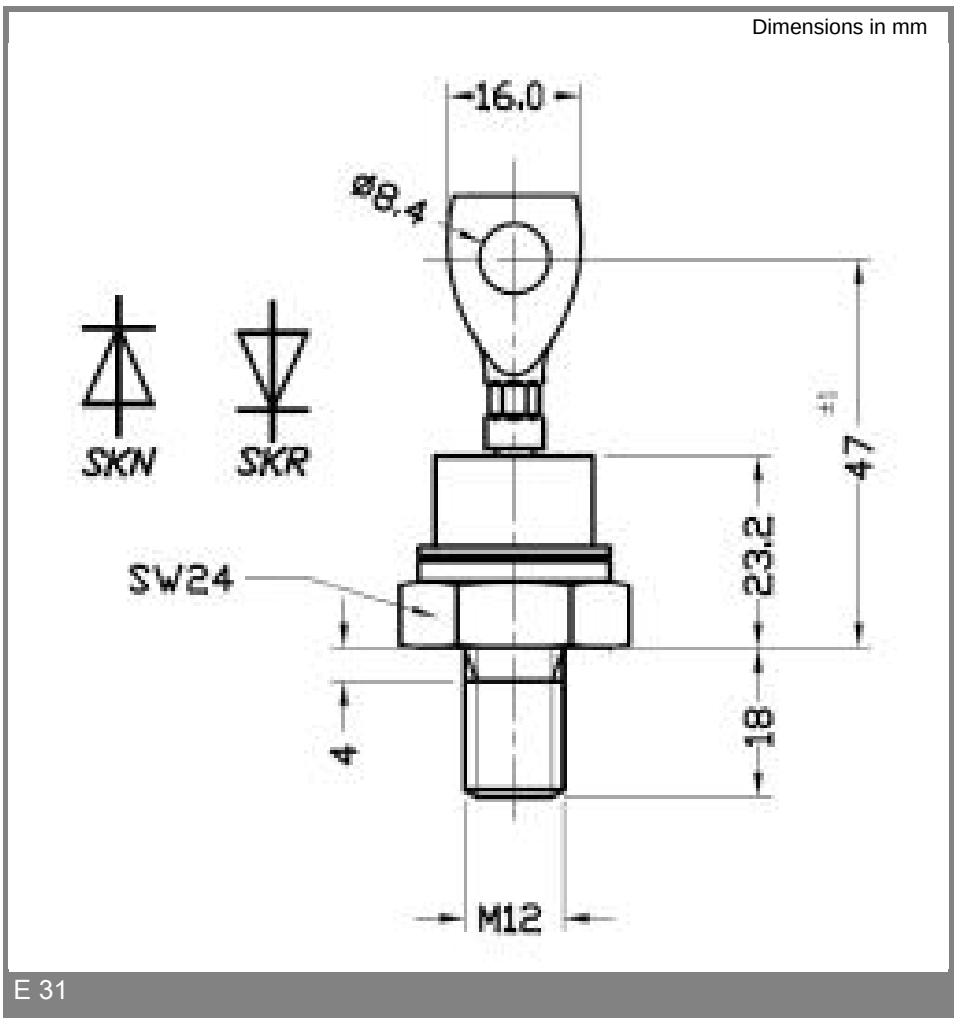


Fig. 5 Surge overload current vs. time



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