SKN 135F



Stud Diode

Fast Recovery Rectifier Diode

SKN 135F

SKR 135F

Features

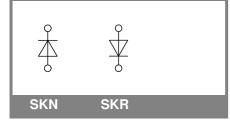
- Small recovered charge
- Soft recovery
- Hermetic metal case with glass insulator
- Threaded stud M12
- SKN: anode to stud; SKR: cathode to stud

Typical Applications*

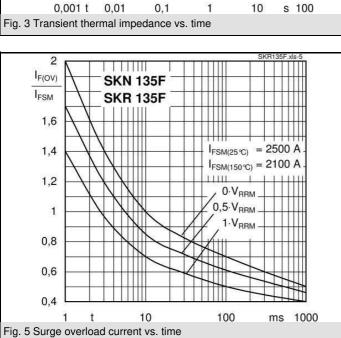
- Inverse diode for GTO and asymmetric thyristor
- Inverters and choppers
- A.C. motor control
- Uniterruptible power supplies
 (UPS)

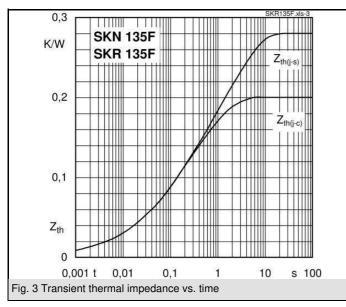
V _{RSM}	V _{RRM}	I _{FRMS} = 260 A (maximum value for continuous operation)		
V	V	I _{FAV} = 135 A (sin. 180; 1000 Hz; T _c = 100 °C)		
800	800	SKN 135F08	SKR 135F08	
1000	1000	SKN 135F10	SKR 135F10	
1200	1200	SKN 135F12	SKR 135F12	

Symbol	Conditions	Values	Units
I _{FAV}	sin. 180; T _c = 85 (100) °C	160 (135)	А
I _{FAV}	K1,1F; T _a = 35 °C; sin. 180; 1000 Hz	110	А
I _{FSM}	T _{vi} = 25 °C; 10 ms	2500	A
	T _{vi} = 150 °C; 10 ms	2100	А
i²t	T _{vj} = 25 °C; 8,3 10 ms	31000	A²s
	T _{vj} = 150 °C; 8,3 10 ms	22000	A²s
V _F	T _{vi} = 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}	$T_{vj} = 25 \text{ °C}; V_{RD} = V_{RRM}$	max. 1	mA
I _{RD}	T _{vj} = 150 °C; V _{RD} = V _{RRM}	max. 100	mA
Q _{rr}	T _{vi} = 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~
Ms	to heatsink	10	Nm
а		5 * 9,81	m/s²
m	approx.	100	g
Case	135F	E 14	









100

200

μC

160

140

120

100

80

60

40 Q_{rr}

0

0 di_F/dt

50

Fig. 1 Typ. recovery charge vs. current decrease

SKN 135F

SKR 135F

I_{FM} = 1000 A

750 A

500 A

300 A

200 A

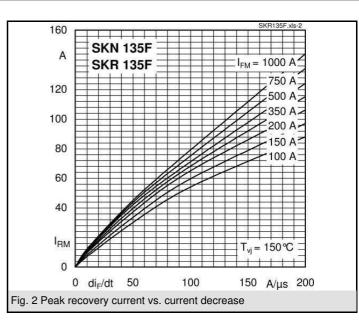
150 A

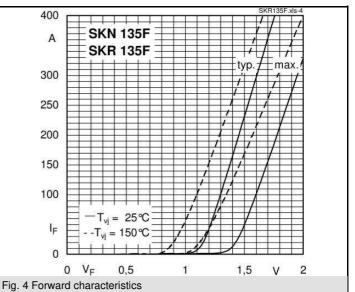
100 A

A/µs 200

T_{vj} = 150 ℃

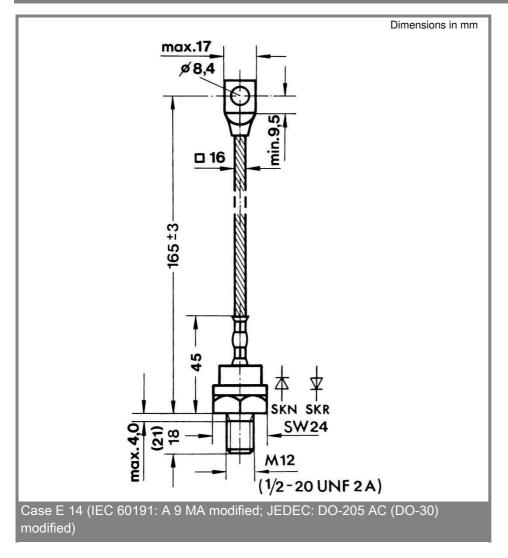
150







SKN 135F



* 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.