

SKKD 170F



SEMIPACK® 2

Fast Diode Modules

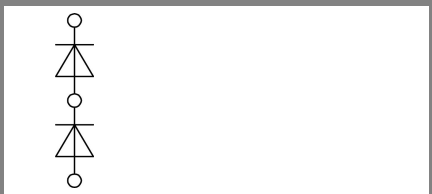
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Features

- CAL (controlled axial lifetime) technology, patent No. DE 43 10 44
- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Very soft recovery over the whole current range
- Low switching losses
- UL recognized, file no. E 63532

Typical Applications

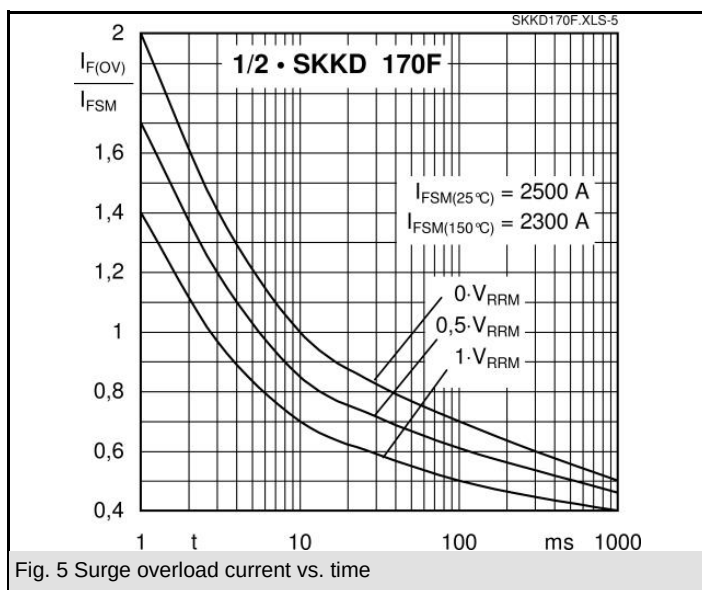
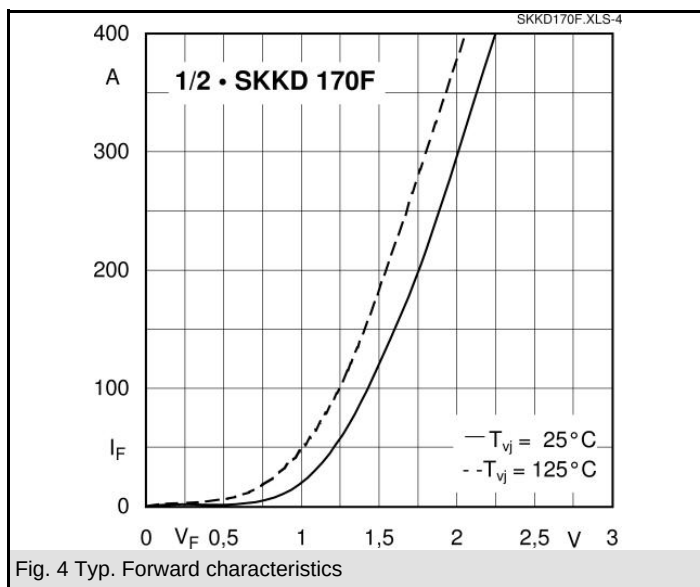
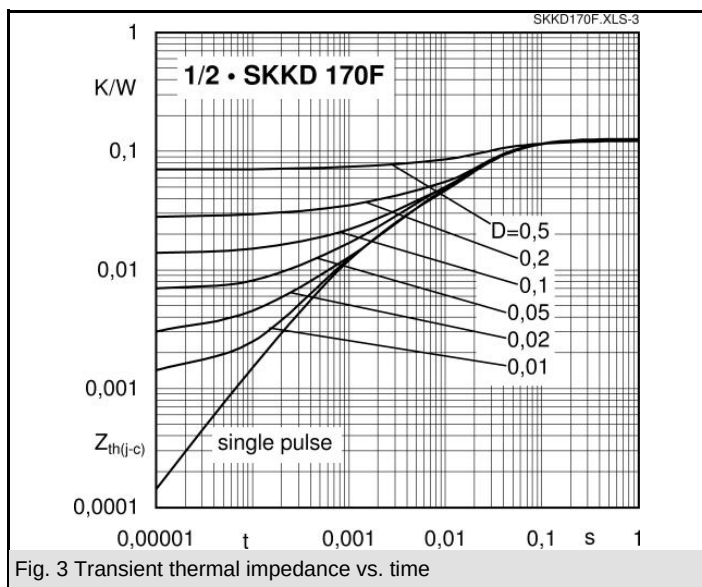
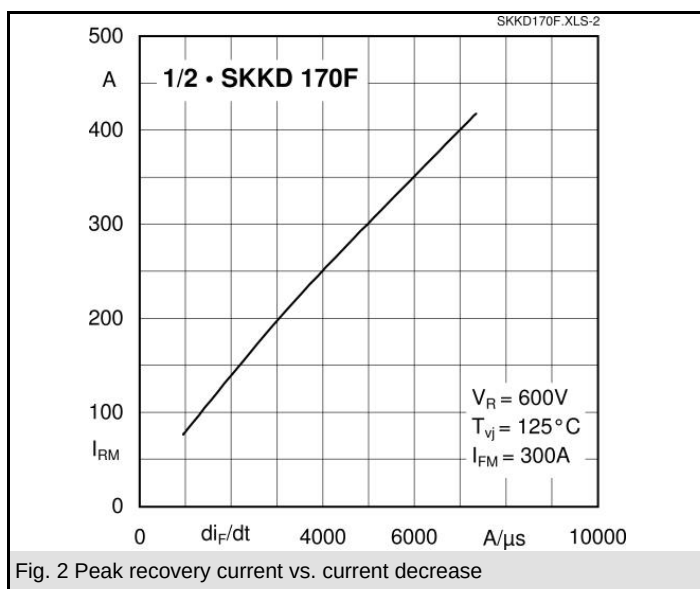
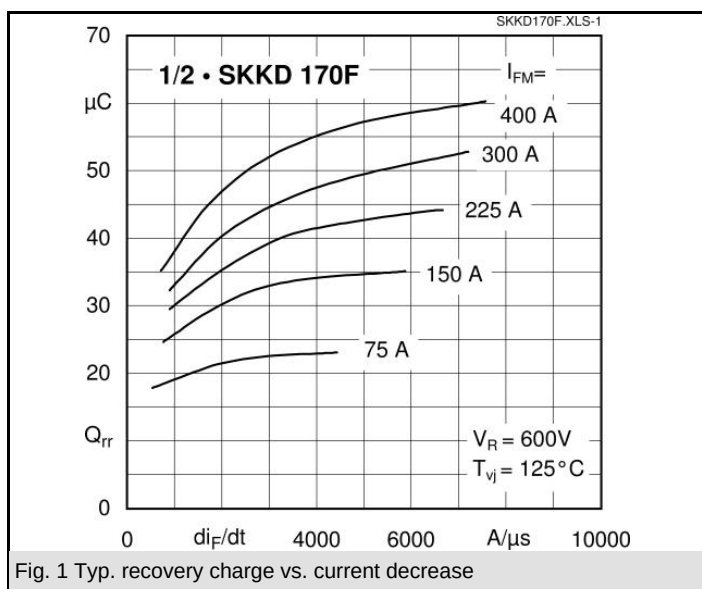
- Self-commutated inverters
- DC choppers
- AC motor speed control
- Inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications

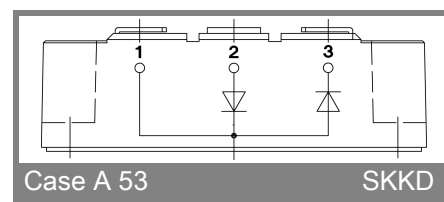
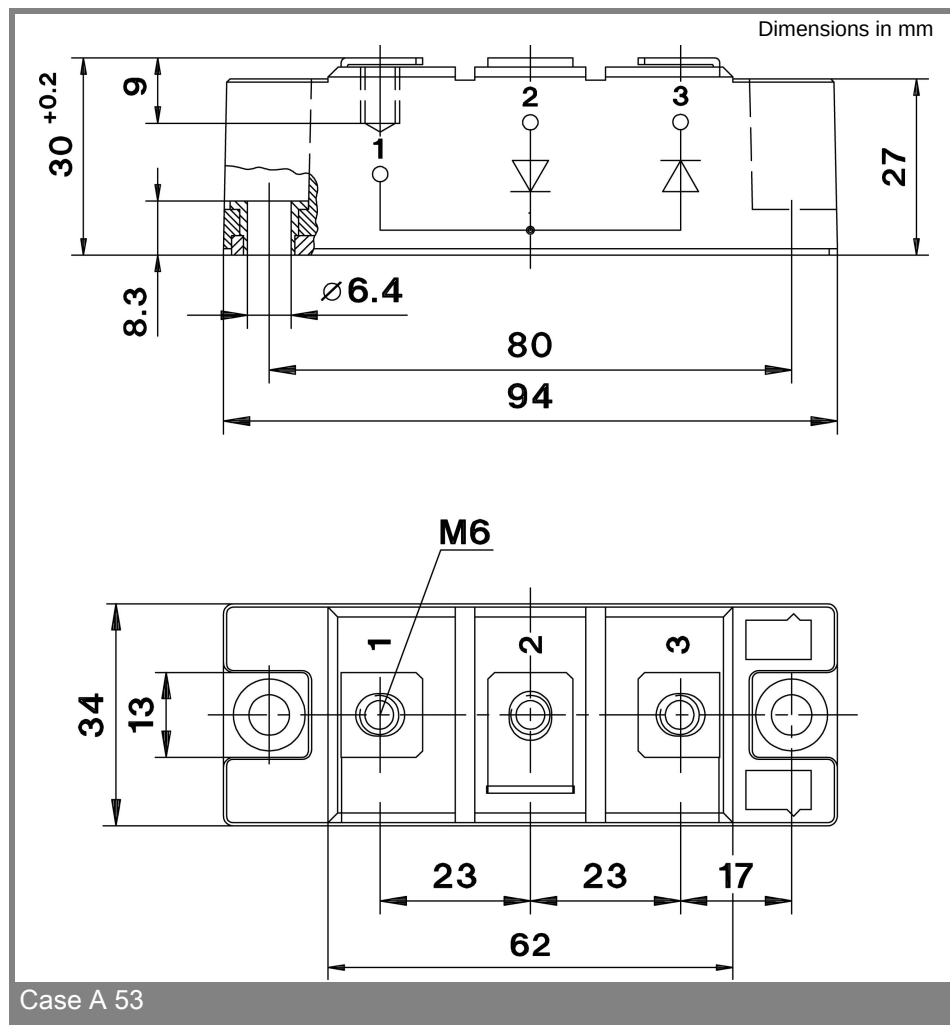


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V_{RSM} V	V_{RRM} V	$I_{FRMS} = 320\text{ A}$ (maximum value for continuous operation) $I_{FAV} = 170\text{ A}$ (sin. 180; $T_c = 85\text{ °C}$)		
1200	1200	SKKD 170F12		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; $T_c = 85\text{ (100) °C}$	170 (145)	A
I_{FSM} i^2t	$T_{vj} = 25\text{ °C}; 10\text{ ms}$	2500	A
	$T_{vj} = 150\text{ °C}; 10\text{ ms}$	2300	A
	$T_{vj} = 25\text{ °C}; 8,3 \dots 10\text{ ms}$	31250	A²s
	$T_{vj} = 150\text{ °C}; 8,3 \dots 10\text{ ms}$	26450	A²s
V_F	$T_{vj} = 25\text{ °C}; I_F = 170\text{ A}$	max. 2	V
$V_{(TO)}$	$T_{vj} = 150\text{ °C}$	max. 1,2	V
r_T	$T_{vj} = 150\text{ °C}$	max. 3,5	mΩ
I_{RD}	$T_{vj} = 25\text{ °C}; V_{RD} = V_{RRM}$	max. 1	mA
I_{RD}	$T_{vj} = 150\text{ °C}; V_{RD} = V_{RRM}$	max. 60	mA
Q_{rr}	$T_{vj} = 125\text{ °C}; I_F = 170\text{ A},$ $-di/dt = 1000\text{ A/μs}, V_R = 600\text{ V}$	28	μC
I_{RM}		80	A
t_{rr}		960	ns
E_{rr}		5	mJ
$R_{th(j-c)}$	per diode / per module	0,14 / 0,07	K/W
$R_{th(c-s)}$	per diode / per module	0,1 / 0,05	K/W
T_{vj}		- 40 ... + 150	°C
T_{stg}		- 40 ... + 125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	4800 / 4000	V~
M_s	to heatsink	5 ± 15 %	Nm
M_t	to terminal	5 ± 15 %	Nm
a		5 * 9,81	m/s²
m	approx.	153	g
Case		A 53	





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