

Customer Product Information (CPI)

Product group:	SEMIPACK	Rev.:	0
No.:	PN25-066	Datasheet update of SKKH 107/16 E and SKKD 101/16	11.08.2025

Dear valued partner,

Thank you for using Semikron Danfoss products. Within our continuous improvement activities we are working to enhance performance, quality and reliability of our products. This notification is to inform you of a minor change, where no acknowledgment is required.

Subject of change: Update of the datasheet

Semikron Danfoss product type: SKKH 107/16 E, SKKD 101/16

Description of change:

- Extension of the diode characteristics in the datasheet of SKKH 107/16E

Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
Thyristor					
V_T	$T_J = 25\text{ °C}, I_T = 300\text{ A}$		1.60	1.75	V
$V_{T(TO)}$	$T_J = 130\text{ °C}$		0.80	0.90	V
r_T	$T_J = 130\text{ °C}$		2.80	3.35	mΩ
I_{DD}, I_{RD}	$T_J = 130\text{ °C}, V_{DD} = V_{DRM}, V_{RD} = V_{RRM}$			20	mA
t_{gd}	$I_G = 1\text{ A}$		1		μs
t_{gr}	$di_G/dt = 1\text{ A/μs}$		2		μs
t_q	$V_D = 0.67 \cdot V_{DRM}$				μs
	$T_J = 130\text{ °C}$		200		μs
I_H	$T_J = 25\text{ °C}$		150	250	mA
I_L	$T_J = 25\text{ °C}, R_G = 33\text{ Ω}$		300	600	mA
V_{GT}	$T_J = 25\text{ °C}, d.c.$	2.5			V
I_{GT}	$T_J = 25\text{ °C}, d.c.$	100			mA
V_{GD}	$T_J = 130\text{ °C}, d.c.$			0.25	V
I_{GD}	$T_J = 130\text{ °C}, d.c.$			4	mA
$R_{th(j-c)}$	cont., per chip			0.15	K/W
	sin. 180°, per chip			0.2	K/W
	rec. 120°, per chip			0.21	K/W
Diode					
V_F	$T_J = 25\text{ °C}, I_F = 300\text{ A}$		1.30	1.45	V
V_{FO}	$T_J = 130\text{ °C}$		0.77	0.85	V
r_F	$T_J = 130\text{ °C}$		1.85	2.05	mΩ
I_R	$T_J = 130\text{ °C}, V_{RD} = V_{RRM}$			3	mA
$R_{th(j-c)}$	cont., per chip			0.15	K/W
	sin. 180°, per chip			0.2	K/W
	rec. 120°, per chip			0.21	K/W

- Adjustments of the forward surge current, i^2t values and power losses for SKKD 101/16

	previous		update	
	typ.	max.	typ.	max.
I_{FSM} @25°C	n/a	2500A	n/a	2600A
I_{FSM} @130°C	n/a	2000A	n/a	2210A
i^2t @25°C	n/a	31250A ² s	n/a	33800A ² s
i^2t @130°C	n/a	20000A ² s	n/a	24421A ² s
r_F at 130°C	0.75V	0.87V	0.77V	0.85V
V_F at 130°C	2.20mΩ	2.45mΩ	1.85mΩ	2.05mΩ

Reason for change:

- SKKH 107/16 E
For a more precise description of the module and the calculation of power losses, in particular, the datasheets of new SEMIPACK 1 6th gen. modules were issued with a separate diode characteristics section. Herewith the same extension is announced for the SKKH 107/16 E type, completing the SKKH datasheets of SEMIPACK 1, 6th gen. with the new format
- SKKD 101/16
Verified improvement of diode properties

Impact of change:

Change of datasheet

Identification of change:

Datasheet revision 4.0 or higher

Time schedule for change: Datasheet changes already in place

Qualification:

Verified by qualification of SKKH 140/16 E, where the same diode chip is used as in SKKH 107/16 E and SKKD 101/16

**Supporting
documentation:**

Latest versions of the datasheets

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Products Affected:

The following table shows the affected products:

Part. No.	Description
230B1489	SKKH 107/16 E
230B1521	SKKD 101/16