



**SEMIPACK® 6**

## Rectifier Diode Modules

### SKKE 1201/22

#### Features

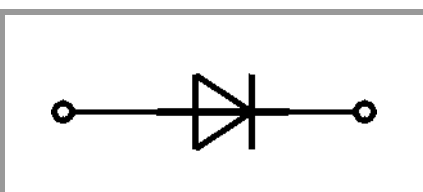
- Precise metal pressure contacts for high reliability
- UL recognized, file no. E 63 532

#### Typical Applications\*

- Rectifiers

Absolute Maximum Ratings				
Symbol	Conditions		Values	Unit
<b>Rectifier Diode</b>				
$I_{FAV}$	sin. 180°	$T_c = 85\text{ °C}$	1360	A
		$T_c = 100\text{ °C}$	1100	A
$I_{FRMS}$	continuous operation		1700	A
$I_{FSM}$	10 ms	$T_j = 25\text{ °C}$	41000	A
		$T_j = 150\text{ °C}$	35000	A
$i^2t$	10 ms	$T_j = 25\text{ °C}$	8405000	A <sup>2</sup> s
		$T_j = 150\text{ °C}$	6125000	A <sup>2</sup> s
$V_{RSM}$			2300	V
$V_{RRM}$			2200	V
$T_j$			-40 ... 150	°C
<b>Module</b>				
$T_{stg}$			-40 ... 150	°C
$V_{isol}$	a.c.; 50 Hz; r.m.s.	1 min	3000	V
		1 s	3600	V

Characteristics						
Symbol	Conditions		min.	typ.	max.	Unit
<b>Diode</b>						
$V_F$	$T_j = 150\text{ °C}, I_F = 3000\text{ A}$				1.11	V
$V_{(TO)}$	$T_j = 150\text{ °C}$				0.75	V
$r_T$	$T_j = 150\text{ °C}$				0.073	mΩ
$I_{RD}$	$T_j = 150\text{ °C}, V_{RD} = V_{RRM}$				150	mA
$R_{th(j-c)}$	cont.	per chip			0.0466	K/W
		per module			0.0466	K/W
$R_{th(j-c)}$	sin. 180°	per chip			0.048	K/W
		per module			0.048	K/W
<b>Module</b>						
$R_{th(c-s)}$	chip				0.015	K/W
	module				0.015	K/W
$M_s$	to heatsink M6		5.1		6.9	Nm
$M_t$	to terminal M12		16.2		19.8	Nm
$a$					5 * 9,81	m/s <sup>2</sup>
$w$					1950	g



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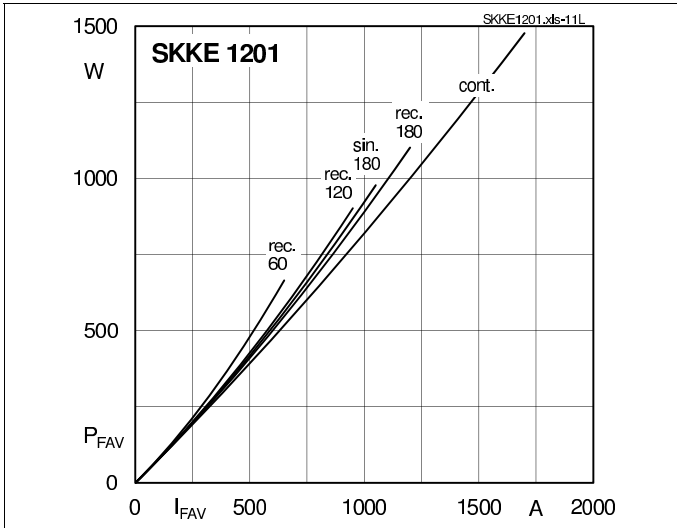


Fig. 11L: Power dissipation per diode vs. forward current

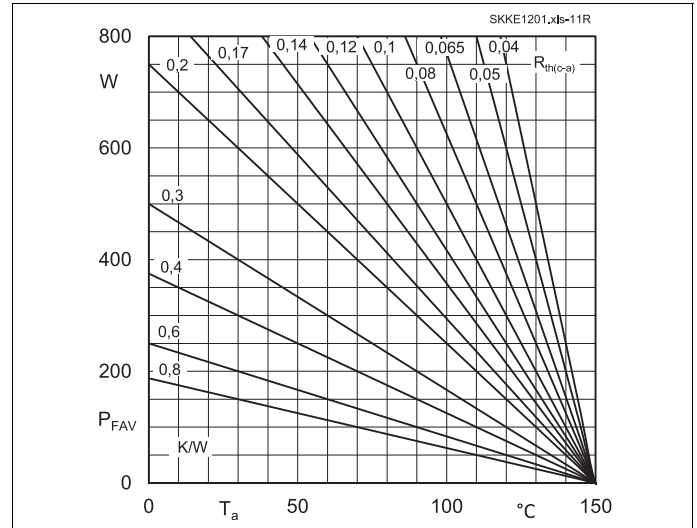


Fig. 11R: Power dissipation per diode vs. ambient temperature

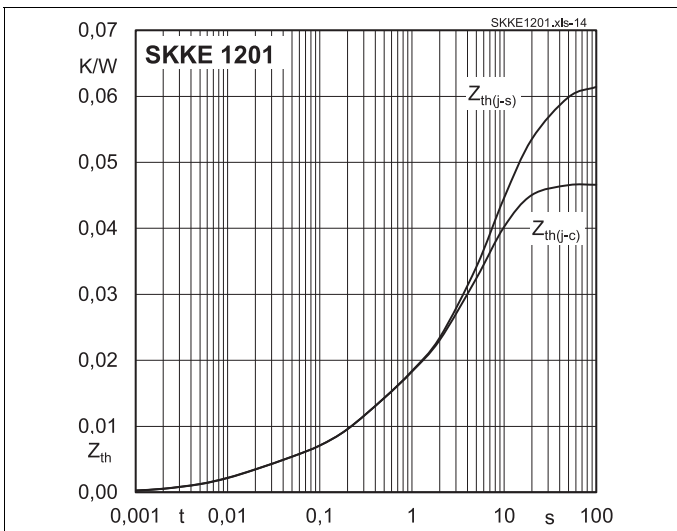


Fig. 14: Transient thermal impedance vs. time

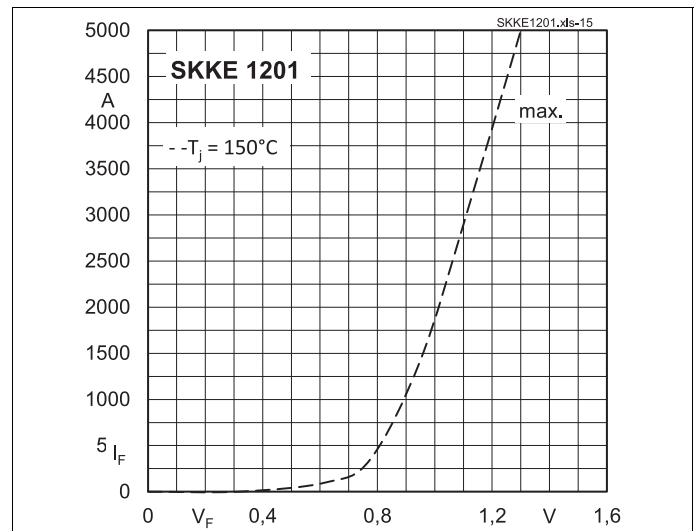


Fig. 15: Forward characteristics

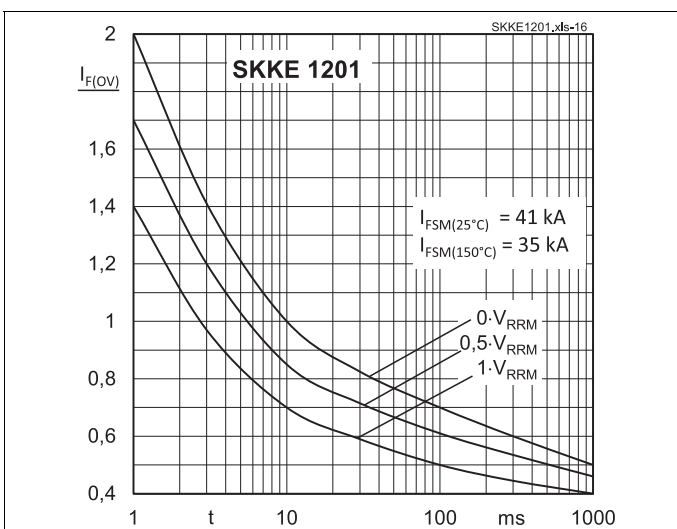
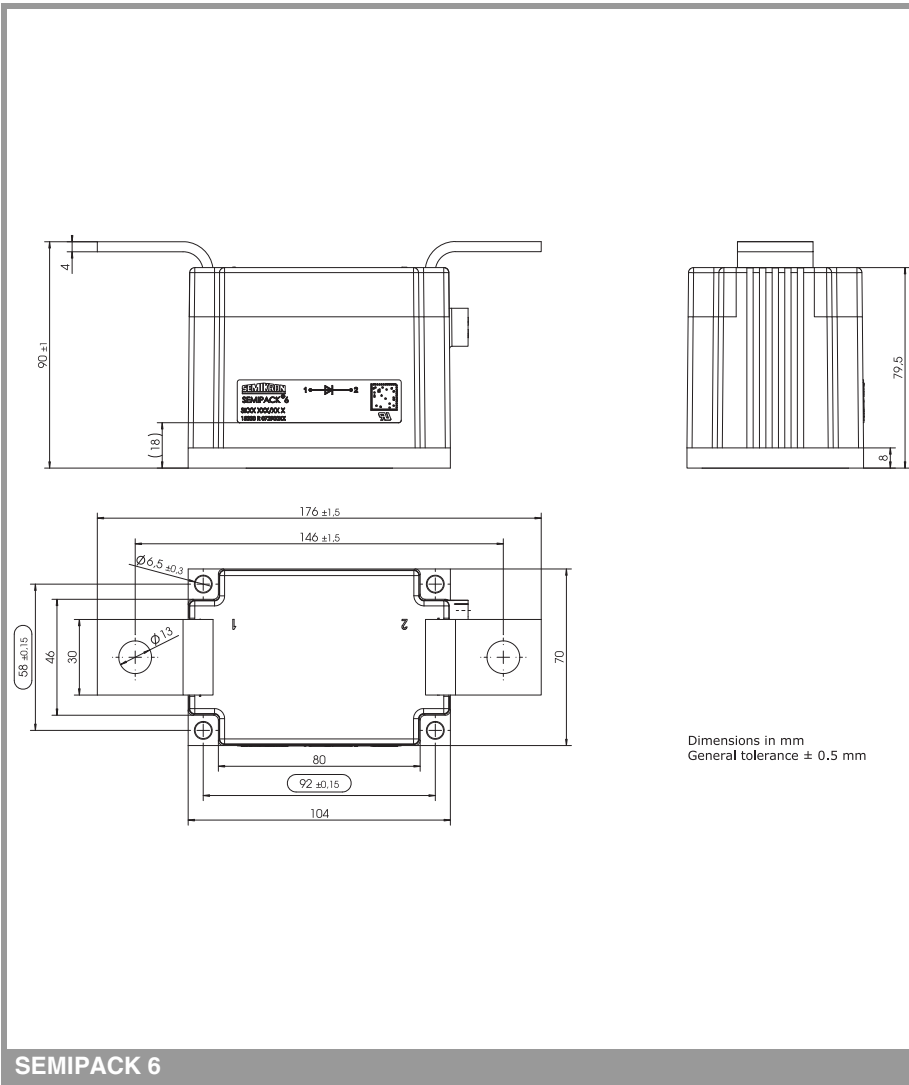
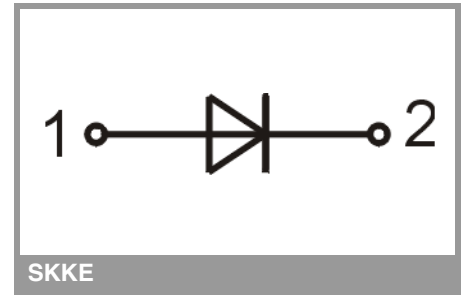


Fig. 16: Surge overload current vs. time



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This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, chapter IX.

### \*IMPORTANT INFORMATION AND WARNINGS

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