SKKE 212/16 H2

SEMIPACK® 2

Rectifier Diode Modules

SKKE 212/16 H2

Features

- Heat transfer through aluminium oxide ceramic insulated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E63532

Typical Applications*

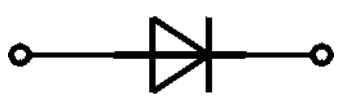
- Rectifiers
- Free-wheeling diodes
- Reverse-polarity protection

Absolute Maximum Ratings

Symbol	Conditions		Values	Unit
Recitifier Diode				
I_{FAV}	sin. 180°	T_c = 85 °C	213	A
	$T_{j\,max}$ = 135 °C	T_c = 100 °C	165	A
I_{FRMS}	continuous operation		-	A
I_{FSM}	10 ms	T_j = 25 °C	6600	A
		T_j = 135 °C	5500	A
i^2t	10 ms	T_j = 25 °C	217800	A^2s
		T_j = 135 °C	151250	A^2s
V_{RSM}	T_j = 25 °C		1700	V
V_{RRM}	T_j = 25 °C		1600	V
T_j			-40 ... 135	°C
Module				
T_{stg}			-40 ... 125	°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
Diode						
V_F	T_j = 25 °C, I_F = 500 A				1.40	V
$V_{(TO)}$	T_j = 135 °C				0.75	V
r_T	T_j = 135 °C				1.05	mΩ
I_{RD}	T_j = 135 °C, V_{RD} = V_{RRM}				9	mA
$R_{th(j-c)}$	cont.	per chip			0.18	K/W
		per module			0.18	K/W
$R_{th(j-c)}$	sin. 180°	per chip			0.18	K/W
		per module			0.18	K/W
Module						
$R_{th(c-s)}$	chip			0.05		K/W
	module			0.05		K/W
M_s	to heatsink M5		4.25		5.75	Nm
M_t	to terminals M6		4.25		5.75	Nm
a					5 * 9.81	m/s^2
w				165		g



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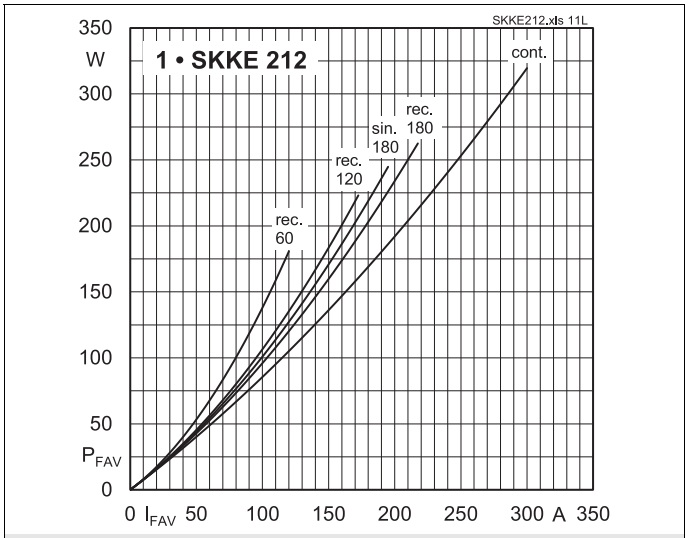

Fig. 11L: Power dissipation per diode vs. forward current

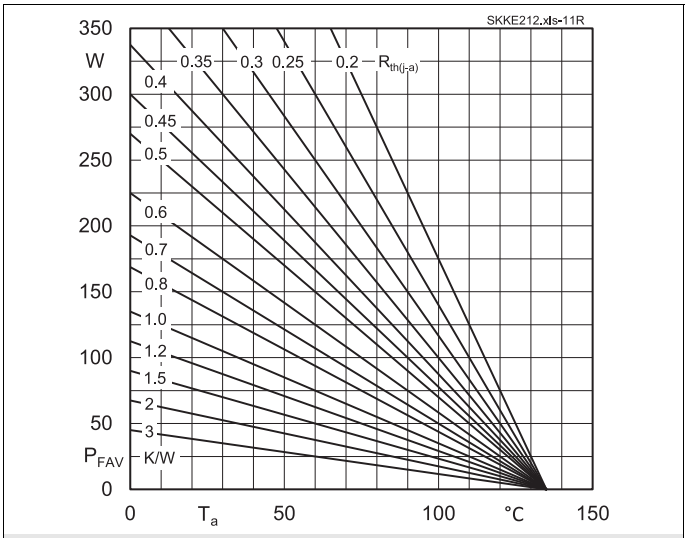

Fig. 11R: Power dissipation per diode vs. ambient temperature

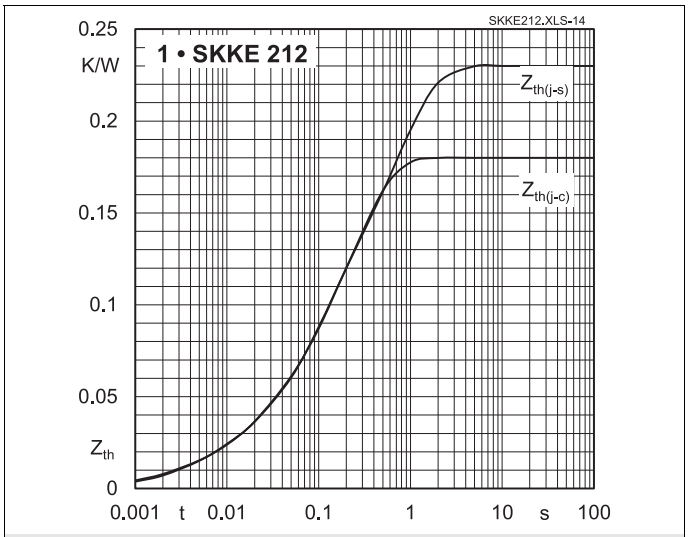

Fig. 14: Transient thermal impedance vs. time

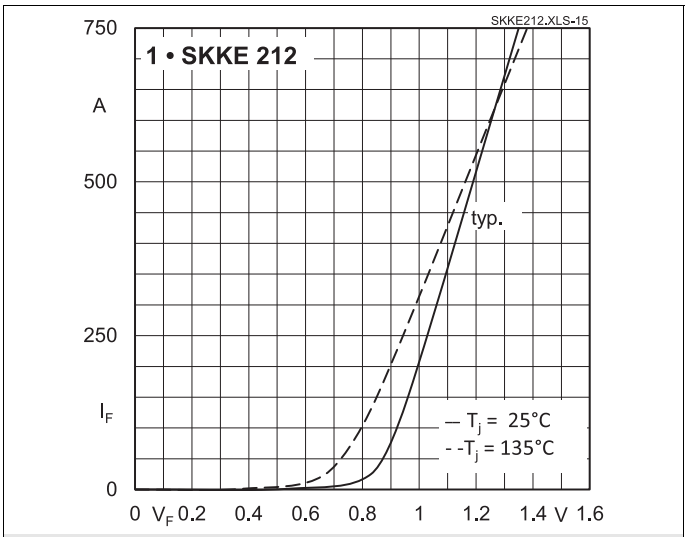

Fig. 15: Forward characteristics

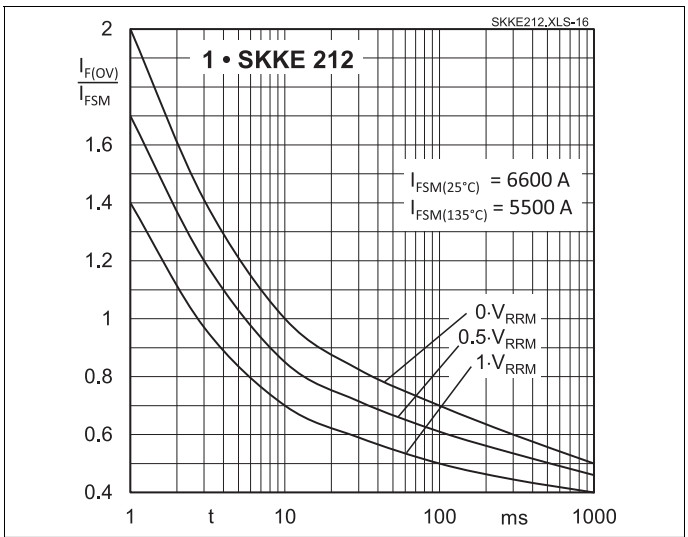

Fig. 16: Surge overload current vs. time

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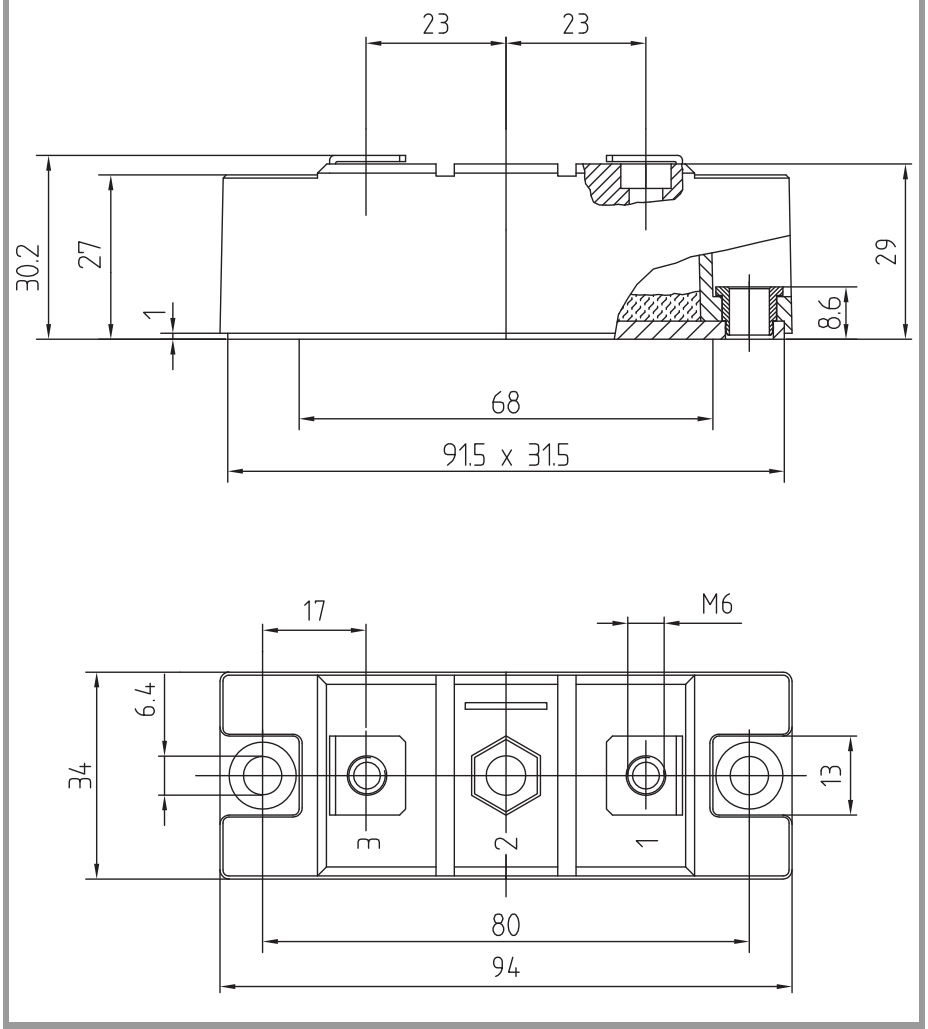

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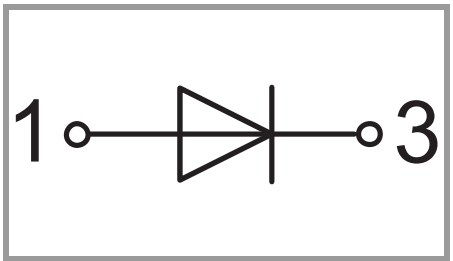

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This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, chapter IX.

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