

SEMIPACK[®] 3

Rectifier Diode Modules

SKKE 380

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precise metal pressure contacts for high reliability
- UL recognized, file no. E 63 53

Typical Applications*

- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

1) The screws must be lubricated

V_{RSM} V	V_{RRM} V	$I_{FRMS} = 600$ A (maximum value for continuous operation) $I_{FAV} = 380$ A (sin. 180; $T_c = 100$ °C)	
1300	1200	SKKE 380/12	
1700	1600	SKKE 380/16	

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; $T_c = 100$ °C	380	A
I_{FSM}	$T_{vj} = 25$ °C; 10 ms	11000	A
	$T_{vj} = 150$ °C; 10 ms	10000	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms	605000	A ² s
	$T_{vj} = 150$ °C; 8,3 ... 10 ms	500000	A ² s
V_F	$T_{vj} = 25$ °C; $I_F = 1000$ A	max. 1,25	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 0,8	V
r_T	$T_{vj} = 150$ °C	max. 0,35	mΩ
I_{RD}	$T_{vj} = 150$ °C; $V_{RD} = V_{RRM}$	max. 10	mA
$R_{th(j-c)}$	cont.; per diode = per module	0,11	K/W
	sin. 180; per diode = per module	0,116	K/W
$R_{th(c-s)}$	per diode = per module	0,04	K/W
T_{vj}		- 40 ... + 150	°C
T_{stg}		- 40 ... + 130	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	5 ± 15 %	Nm
M_t	to terminals	9 ± 15 % ¹⁾	Nm
a		$5 * 9,81$	m/s ²
m	approx.	550	g
Case		A 77b	



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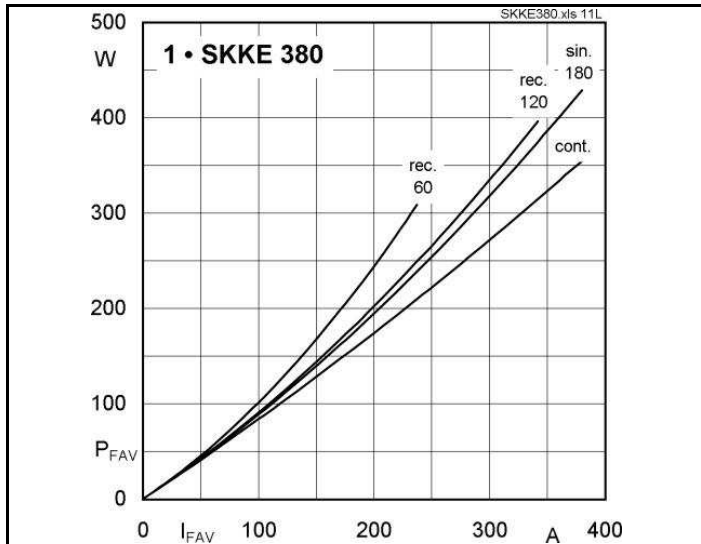


Fig. 11L Power dissipation per diode vs. forward current

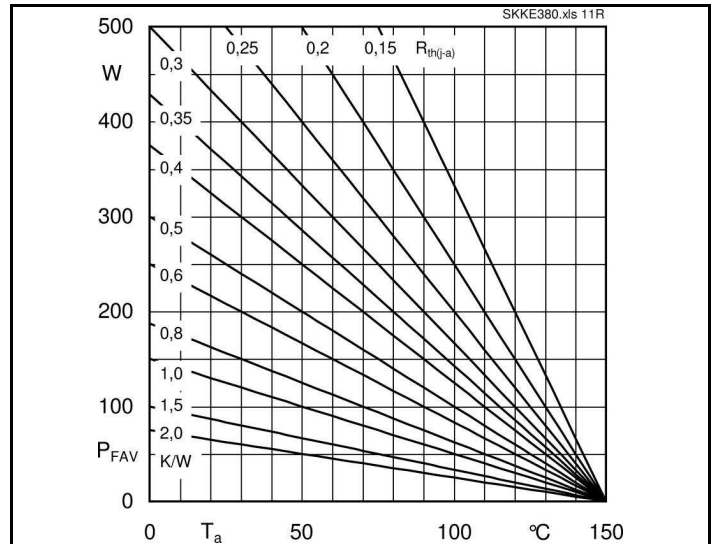


Fig. 11R Power dissipation per diode vs. ambient temperature

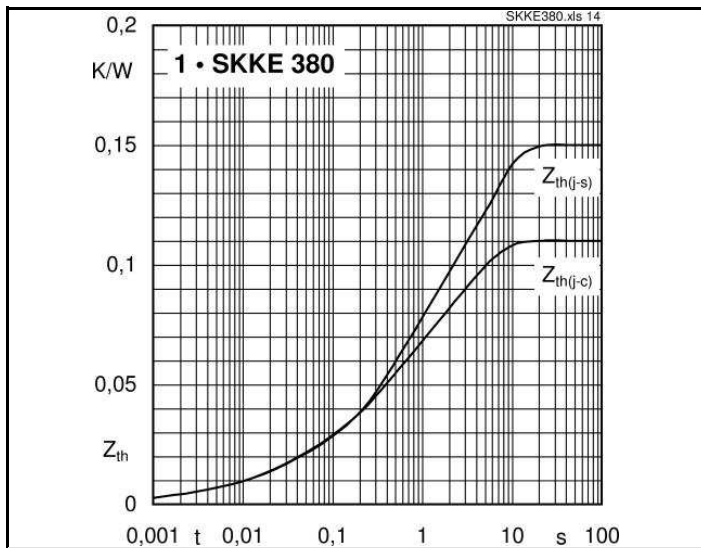


Fig. 14 Transient thermal impedance vs. time

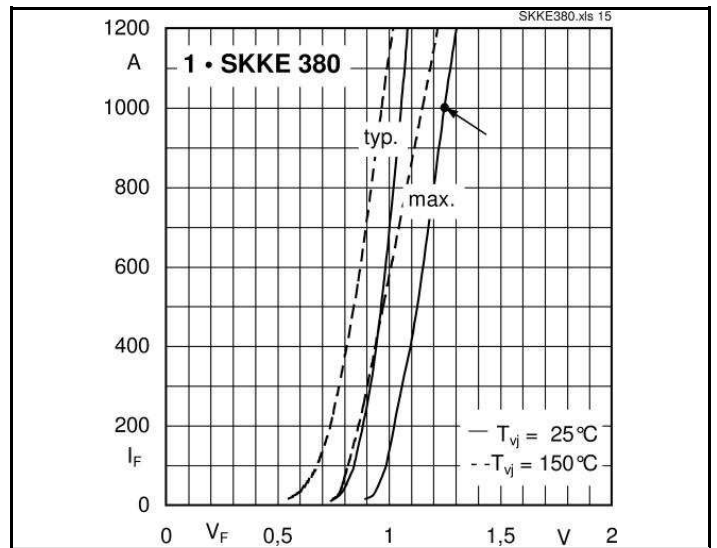


Fig. 15 Forward characteristics

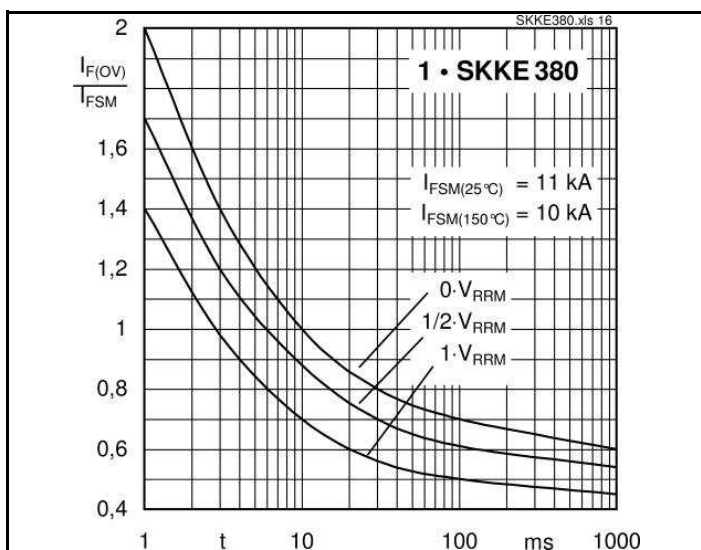


Fig. 16 Surge overload current vs. time

