



SEMIPACK[®] 1

Modules with Thyristor and Free-Wheeling Diode

SKNH 56

Features

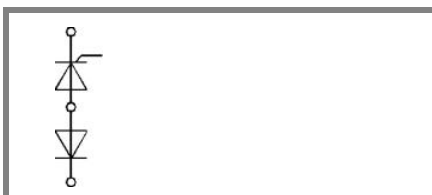
- Heat transfer through ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532
- Electrical data see also data sheet SKKH 57

Typical Applications

- Special modules for DC braking of AC induction motors

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 95$ A (maximum value for continuous operation) $I_{TAV} = 50$ A (sin. 180; $T_c = 85$ °C)	
1300	1200	SKNH 56/12E	
1500	1400	SKNH 56/14E	
1700	1600	SKNH 56/16E	
1900	1800	SKNH 56/18E	

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85$ (100) °C	50 (35)	A
I_D	P3/120; $T_a = 45$ °C;	70	A
I_{TSM}	$T_{vj} = 25$ °C; 10 ms	1500	A
	$T_{vj} = 125$ °C; 10 ms	1250	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms	11000	A ² s
	$T_{vj} = 125$ °C; 8,3 ... 10 ms	8000	A ² s
V_T	$T_{vj} = 25$ °C; $I_T = 200$ A	max. 1,65	V
$V_{T(TO)}$	$T_{vj} = 125$ °C	0,9	V
r_T	$T_{vj} = 125$ °C	3,5	mΩ
$I_{DD}; I_{RD}$	$T_{vj} = 25$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 15	mA
t_{gd}	$T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs	1	μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	2	μs
$(di/dt)_{cr}$	$T_{vj} = 125$ °C	max. 100	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C	max. 1000	V/μs
t_q	$T_{vj} = 125$ °C	50 ... 150	μs
I_H	$T_{vj} = 25$ °C; typ. / max.	/ 250	mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	/ 600	mA
V_{GT}	$T_{vj} = 25$ °C; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25$ °C; d.c.	min. 150	mA
V_{GD}	$T_{vj} = 125$ °C; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 125$ °C; d.c.	max. 6	mA
$R_{th(j-c)}$	cont.; per thyristor / per diode	0,57	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per diode	0,6	K/W
$R_{th(j-c)}$	sin. 180; per module	0,3	K/W
$R_{th(c-s)}$	per thyristor / per module	0,2 / 0,1	K/W
T_{vj}		- 40 ... + 125	°C
T_{stg}		- 40 ... + 125	°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	5 ± 15 %	Nm
a		5 * 9,81	m/s ²
m	approx.	120	g
Case		A 7	



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