SKDH 100



SEMIPONT[®] 2

Controllable Bridge Rectifiers

SKDH 100

Features

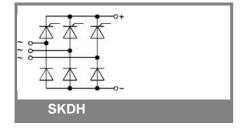
- Fully controlled three phase bridge rectifier
- Robust plastic case with screw terminals
- · Large, isolated base plate
- Blocking voltage to 1400V
- High surge currents
- · Easy chassis mounting
- UL recognized, file no. E 63 532

Typical Applications

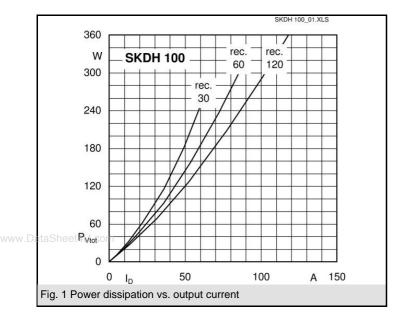
- For DC drives with a fixed direction of rotation
- Controlled field rectifiers for DC motors
- Controlled battery charger rectifiers
- 1) Painted metal shield of minimum 250 x 250 x 1 mm: $R_{th(c-a)} = 1.8 \text{ K/W}$

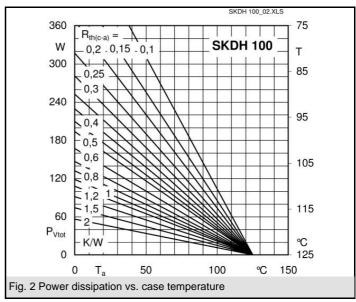
V _{RSM}	V_{RRM}, V_{DRM}	I _D = 100 A (full conduction)
V	V	(T _c = 84 °C)
800	800	SKDH 100/08
1200	1200	SKDH 100/12
1400	1400	SKDH 100/14

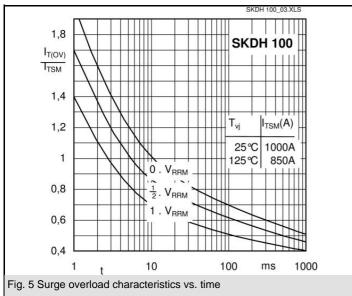
Symbol	Conditions	Values	Units
I _D	T _c = 85 °C	98	Α
	T _a = 45 °C; chassis ¹⁾	20	Α
	T _a = 45 °C; P13A/125	25	Α
	T _a = 45 °C; P1A/120	45	Α
I _{TSM} , I _{FSM}	T _{vi} = 25 °C; 10 ms	1000	Α
	T _{vi} = 125 °C; 10 ms	850	Α
i²t	$T_{vj} = 25 ^{\circ}\text{C}; 8,3 \dots 10 \text{ms}$	5000	A²s
	$T_{vj} = 125 ^{\circ}\text{C}; 8,3 \dots 10 \text{ms}$	3600	A²s
V_{T}	T _{vi} = 25 °C; I _T =200 A	max. 1,95	V
$V_{T(TO)}$	T _{vi} = 125 °C;	max. 1	V
r _T	$T_{vj} = 125 ^{\circ}\text{C}$	max. 4,5	mΩ
I _{DD} ; I _{RD}	$T_{vj} = 125 \text{ °C}; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}$	max. 15	mA
t _{gd}	$T_{vj} = 25 \text{ °C}; I_G = 1 \text{ A}; di_G/dt = 1 \text{ A/}\mu\text{s}$	1	μs
t _{gr}	$V_D = 0.67 \cdot V_{DRM}$	1	μs
(dv/dt) _{cr}	T _{vi} = 125 °C	max. 500	V/µs
(di/dt) _{cr}	T _{vi} = 125 °C; f = 50 Hz	max. 50	A/µs
t_q	$T_{vj} = 125 ^{\circ}\text{C}; \text{ typ.}$	80	μs
I _H	$T_{vj} = 25 ^{\circ}\text{C}$; typ. / max.	100 / 200	mA
I_{L}	T_{vj} = 25 °C; R_G = 33 Ω	250 / 400	mA
V _{GT}	T _{vi} = 25 °C; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25 ^{\circ}\text{C}; \text{d.c.}$	min. 150	mA
V_{GD}	$T_{vj} = 125 ^{\circ}\text{C}; \text{d.c.}$	max. 0,25	V
I_{GD}	T _{vj} = 125 °C; d.c.	max. 5	mA
R _{th(j-c)}	per thyristor / diode	0,85	K/W
3 37	total	0,141	K/W
$R_{\text{th(c-s)}}$	total	0,05	K/W
T _{vi}		- 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	Nm
M _t	to terminals	3	Nm
m		165	g
Case	SKDH	G 53	

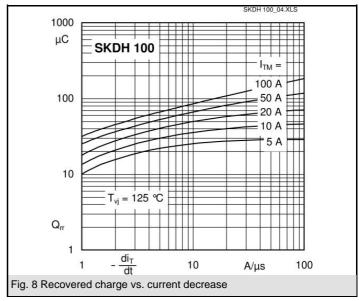


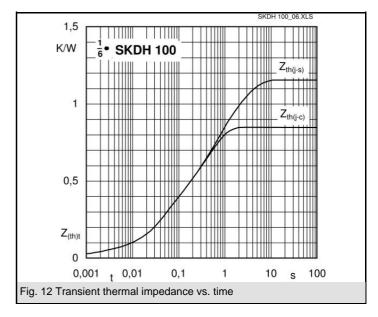
SKDH 100

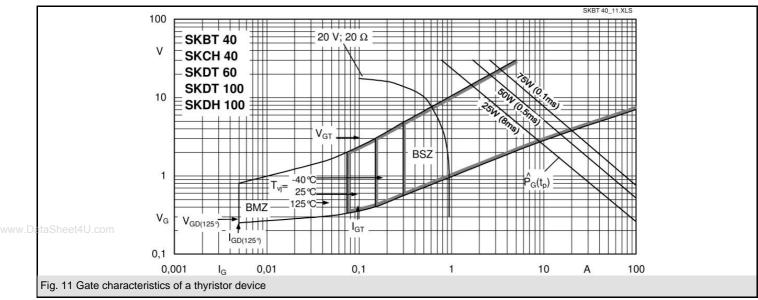


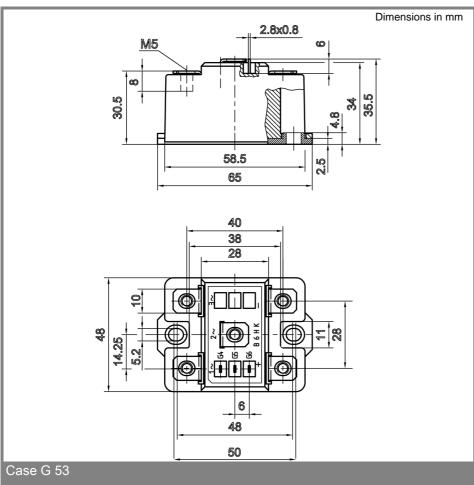












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