



SEMIPONT[®] 2

Controllable Bridge Rectifiers

SKDT 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

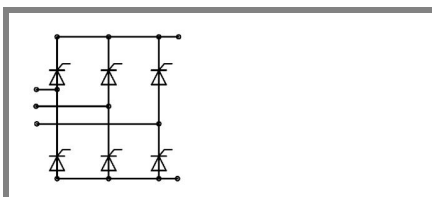
Typical Applications

- 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	V_{RRM}, V_{DRM} V	$I_D = 100 \text{ A (full conduction)}$ ($T_c = 84 \text{ °C}$)
900	800	SKDT 100/08
1300	1200	SKDT 100/12
1500	1400	SKDT 100/14
1700	1600	SKDT 100/16

Symbol	Conditions	Values	Units
I_D	$T_c = 85 \text{ °C}$	98	A
	$T_a = 45 \text{ °C; chassis } ^1)$	20	A
	$T_a = 45 \text{ °C; P13A/125}$	25	A
	$T_a = 45 \text{ °C; P1A/120}$	45	A
I_{TSM}, I_{FSM}	$T_{vj} = 25 \text{ °C; } 10 \text{ ms}$	1000	A
	$T_{vj} = 125 \text{ °C; } 10 \text{ ms}$	850	A
i^2t	$T_{vj} = 25 \text{ °C; } 8,3 \dots 10 \text{ ms}$	5000	A ² s
	$T_{vj} = 125 \text{ °C; } 8,3 \dots 10 \text{ ms}$	3600	A ² s
V_T	$T_{vj} = 25 \text{ °C; } I_T = 200 \text{ A}$	max. 1,95	V
$V_{T(TO)}$	$T_{vj} = 125 \text{ °C;}$	max. 1	V
r_T	$T_{vj} = 125 \text{ °C}$	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
$(dv/dt)_{cr}$	$T_{vj} = 125 \text{ °C}$	max. 500	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125 \text{ °C; } f = 50 \text{ Hz}$	max. 50	A/μs
t_q	$T_{vj} = 125 \text{ °C; typ.}$	80	μs
I_H	$T_{vj} = 25 \text{ °C; typ. / max.}$	100 / 200	mA
I_L	$T_{vj} = 25 \text{ °C; } R_G = 33 \text{ }\Omega$	250 / 400	mA
V_{GT}	$T_{vj} = 25 \text{ °C; d.c.}$	min. 3	V
I_{GT}	$T_{vj} = 25 \text{ °C; d.c.}$	min. 150	mA
V_{GD}	$T_{vj} = 125 \text{ °C; d.c.}$	max. 0,25	V
I_{GD}	$T_{vj} = 125 \text{ °C; d.c.}$	max. 5	mA
$R_{th(j-c)}$	per thyristor / diode	0,85	K/W
	total	0,141	K/W
$R_{th(c-s)}$	total	0,05	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	Nm
M_t	to terminals	3	Nm
m		165	g
Case	SKDT	G 21	



SKDT

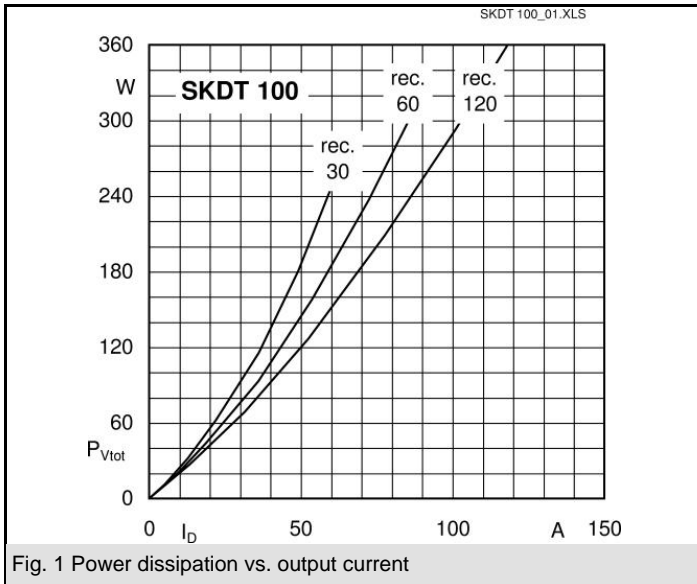


Fig. 1 Power dissipation vs. output current

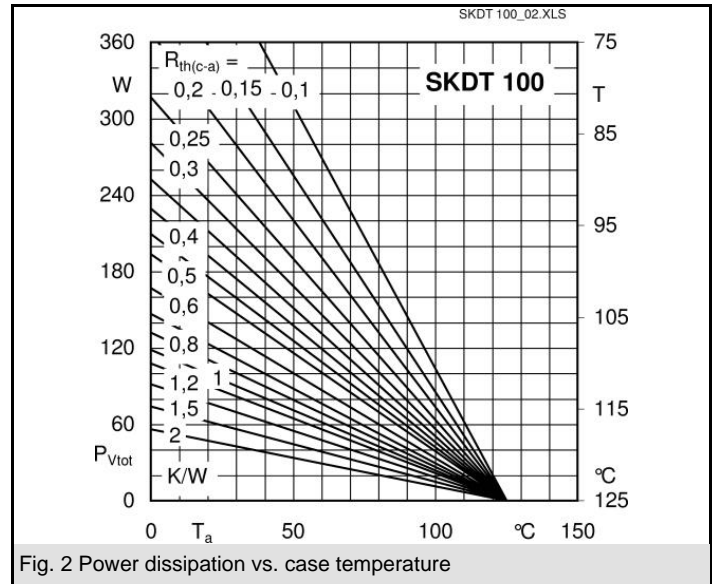


Fig. 2 Power dissipation vs. case temperature

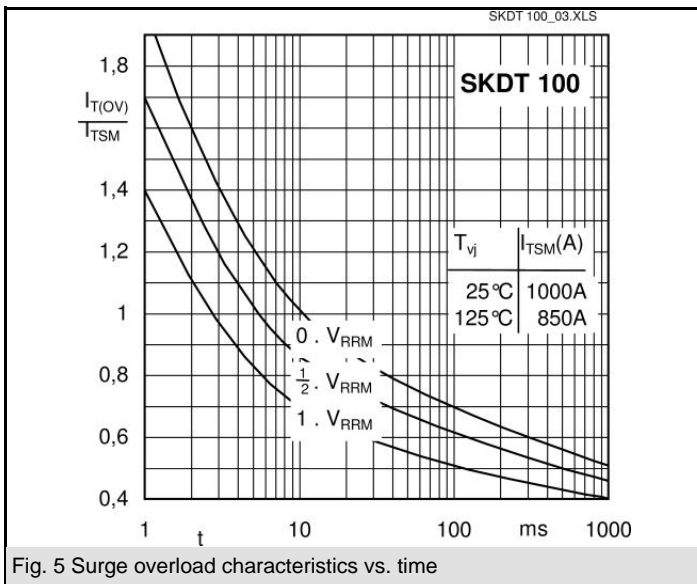


Fig. 5 Surge overload characteristics vs. time

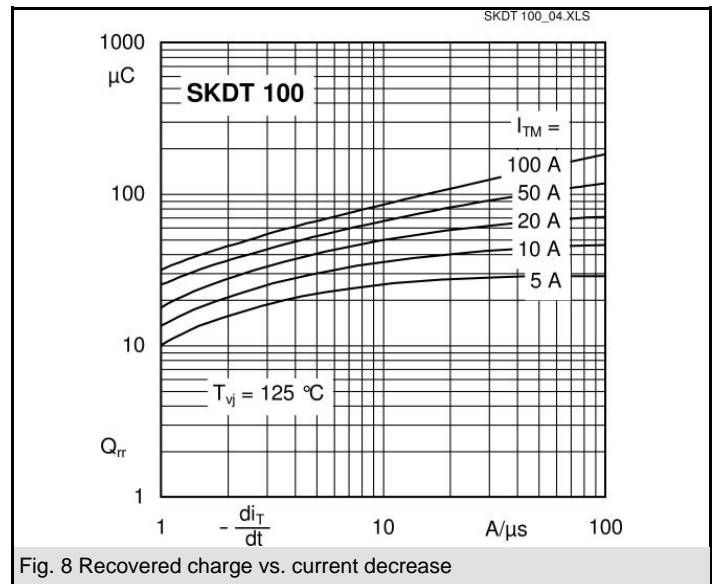


Fig. 8 Recovered charge vs. current decrease

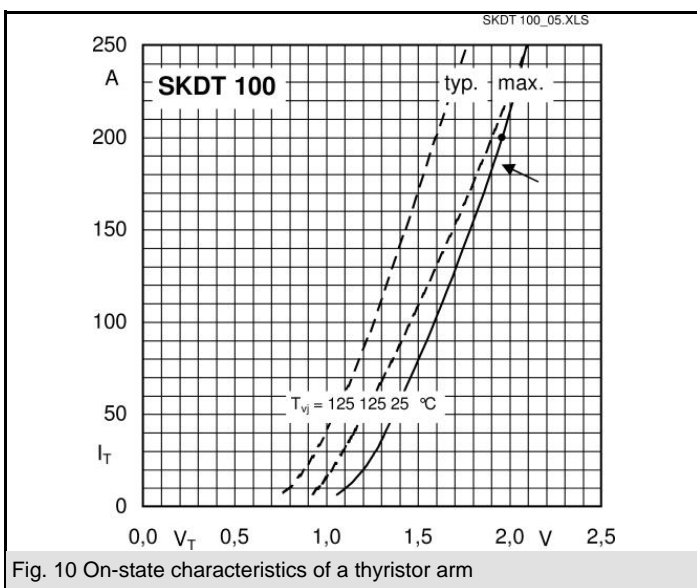


Fig. 10 On-state characteristics of a thyristor arm

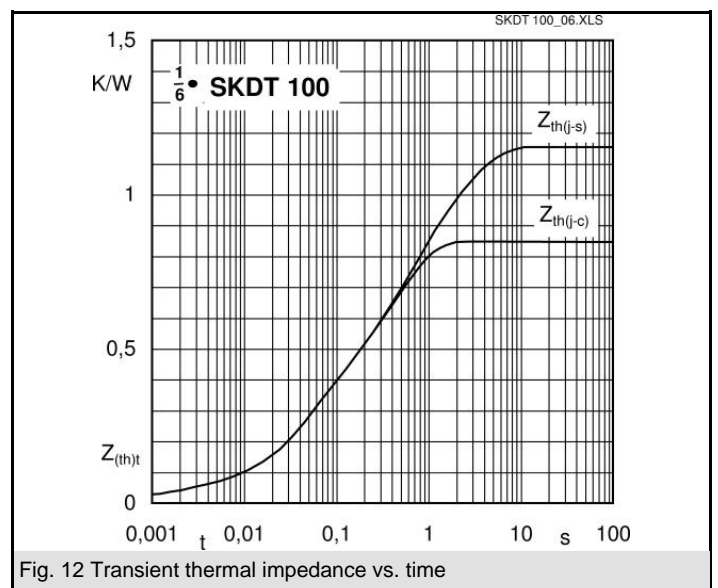
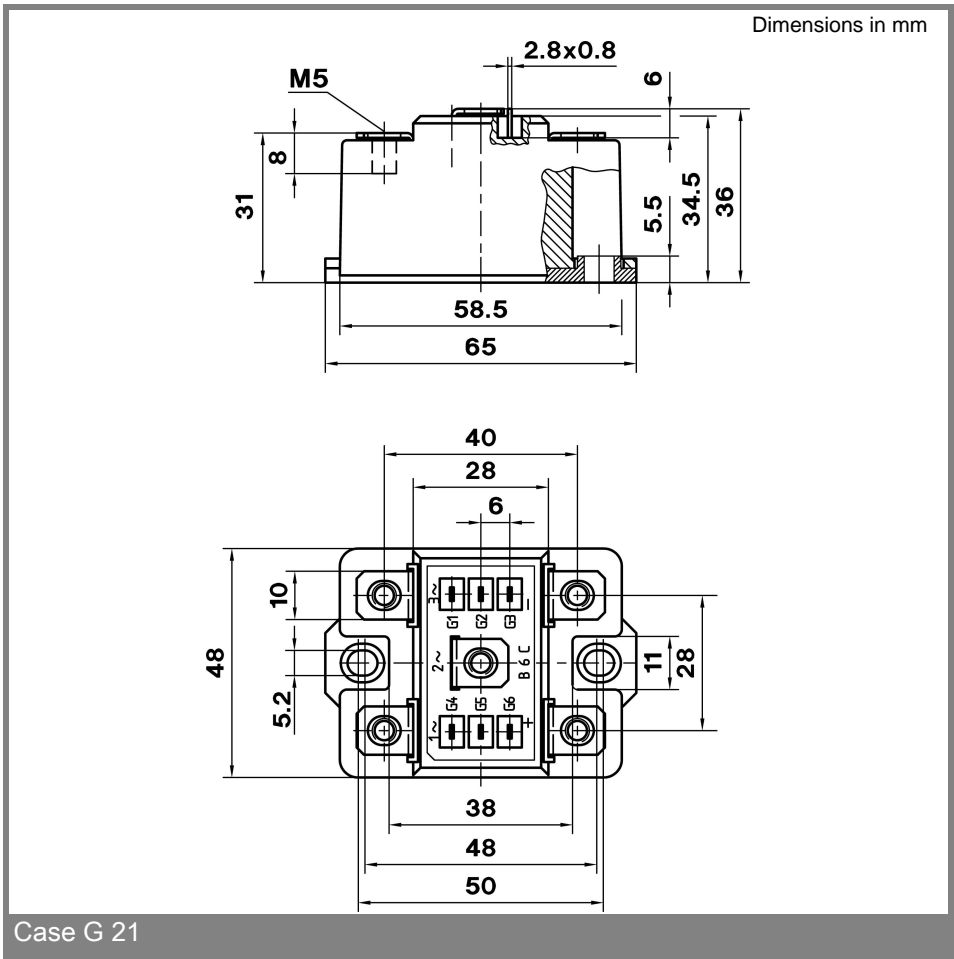
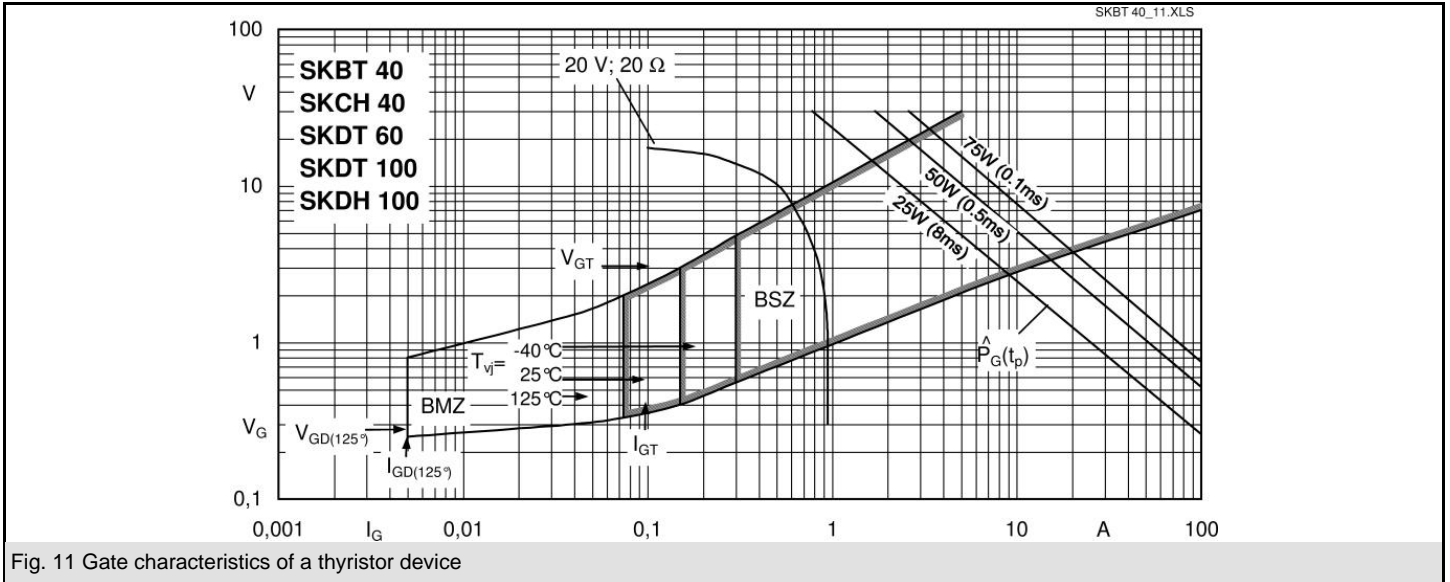


Fig. 12 Transient thermal impedance vs. time



This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bridge Rectifiers](#) category:

Click to view products by [Semikron](#) manufacturer:

Other Similar products are found below :

[G3SBA60-E351](#) [GBJ1504-BP](#) [GBU10B-BP](#) [GBU15J-BP](#) [GBU15K-BP](#) [GBU4A-BP](#) [GBU4D-BP](#) [GBU6B-E3/45](#) [GSIB680-E3/45](#) [DB101-BP](#) [DF10SA-E345](#) [RMB2S](#) [RCG](#) [APT30DF100HJ](#) [APT60DF20HJ](#) [B2S-E3/80](#) [BU1506-E351](#) [BU15085S-E345](#) [BU1508-E3/45](#) [BU1510-E3/45](#) [RS404GL-BP](#) [RS405GL-BP](#) [G3SBA20-E3/51](#) [G5SBA20-E3/51](#) [G5SBA60-E3/51](#) [GBJ1502-BP](#) [GBL02-E351](#) [GBL10-E3/45](#) [GBU10J-BP](#) [GBU4J-BP](#) [GBU4K-BP](#) [GBU8B-E3/45](#) [GBU8D-BP](#) [GBU8J-BP](#) [GSIB1520-E3/45](#) [MB1510](#) [MB352W](#) [MB6M-G](#) [B2M-E345](#) [B40C7000A](#) [B500C7000A](#) [MP5010W-BP](#) [MP501W-BP](#) [MP502-BP](#) [BR1005-BP](#) [BR101-BP](#) [BU1006-E345](#) [BU12065S-E3/45](#) [BU1508-E3/51](#) [BU2006-E3/45](#) [BU2008-E345](#)