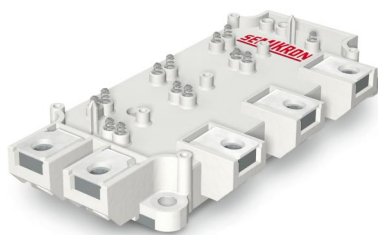


SEMiX 241DH...



SEMiX® 13s

Bridge Rectifier Module (halfcontrolled)

SEMiX 241DH

Preliminary Data

Features

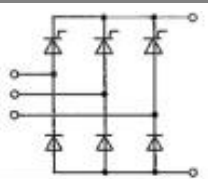
- Terminal height 17 mm
- Chips soldered directly to isolated substrate

Typical Applications

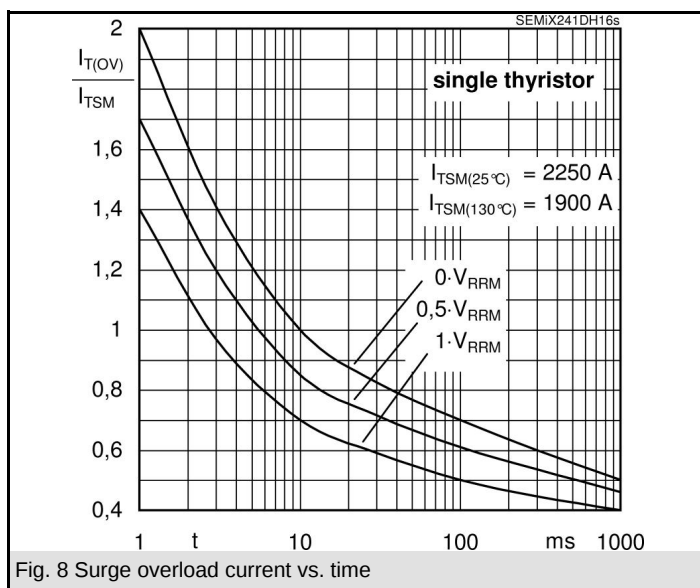
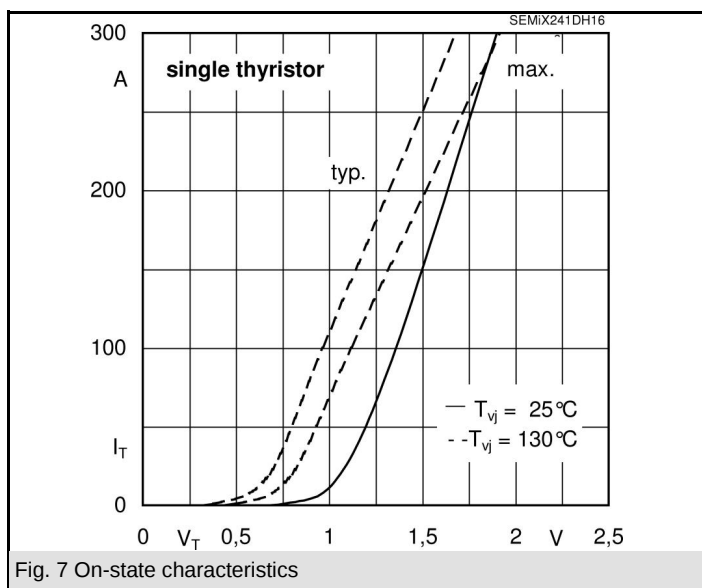
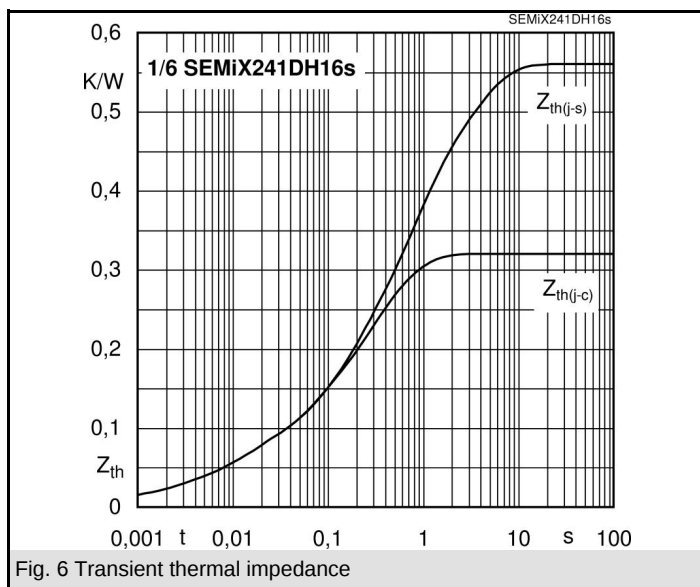
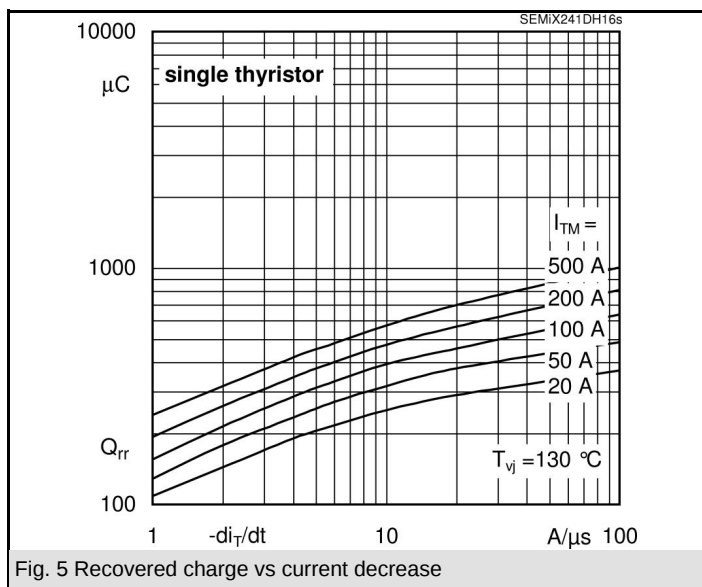
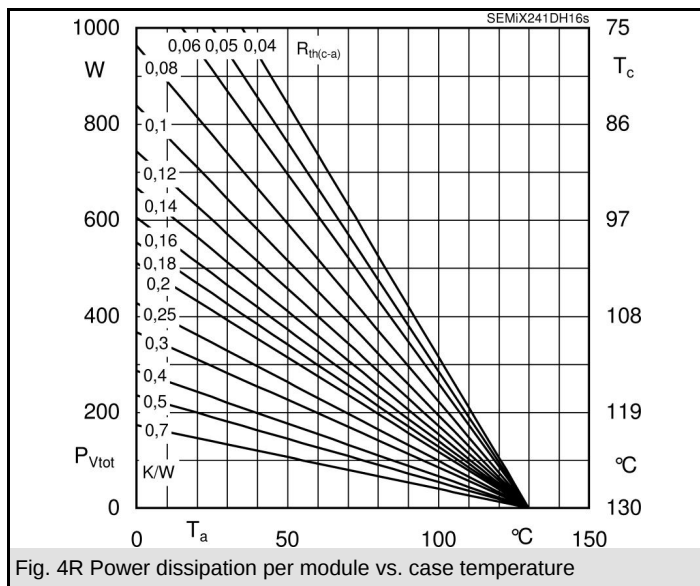
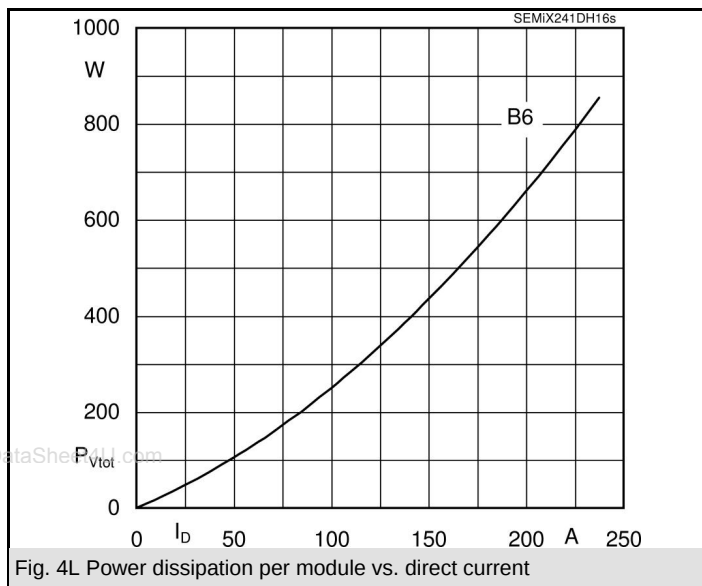
- Input Bridge Rectifier for
- AC/DC motor control
- power supply

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_D = 240$ A (full conduction) ($T_c = 85$ °C)
1700	1600	SEMiX 241DH16s

Symbol	Conditions	Values	Units
I_D	$T_c = 85$ °C	240	A
	$T_c = 100$ °C	200	A
I_{TSM}, I_{FSM}	$T_{vj} = 25$ °C; 10 ms	2250	A
	$T_{vj} = 130$ °C; 10 ms	1900	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms	25300	A²s
	$T_{vj} = 130$ °C; 8,3 ... 10 ms	18000	A²s
V_T	$T_{vj} = 25$ °C; $I_T = 300$	max. 1,9	V
$V_{T(TO)}$	$T_{vj} = 130$ °C;	max. 0,85	V
r_T	$T_{vj} = 130$ °C	max. 4	mΩ
I_{DD}, I_{RD}	$T_{vj} = 130$ °C; $V_{DD} = V_{DRM}, V_{RD} = V_{RRM}$	max. 24	mA
t_{gd}	$T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs	1	μs
t_{gr}	$V_D = 0,67 \cdot V_{DRM}$	2	μs
$(dv/dt)_{cr}$	$T_{vj} = 130$ °C	max. 1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 130$ °C; $f = 50$ Hz	max. 100	A/μs
t_q	$T_{vj} = 130$ °C; typ.	150	μs
I_H	$T_{vj} = 25$ °C; typ. / max.	150 / 250	mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$	300 / 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}	$T_{vj} = 130$ °C; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 130$ °C; d.c.	max. 6	mA
$R_{th(j-c)}$	per thyristor	0,32	K/W
	per diode	0,32	K/W
$R_{th(c-s)}$	per module	0,04	K/W
T_{vj}		- 40 ... + 130	°C
T_{stg}		- 40 ... + 125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	4800 (4000)	V
M_s	(min./max.)	3/5	Nm
M_t	(min./max.)	2,5/5	Nm
a		5 * 9,81	m/s²
m		300	g
Case	SEMiX13s		



DH



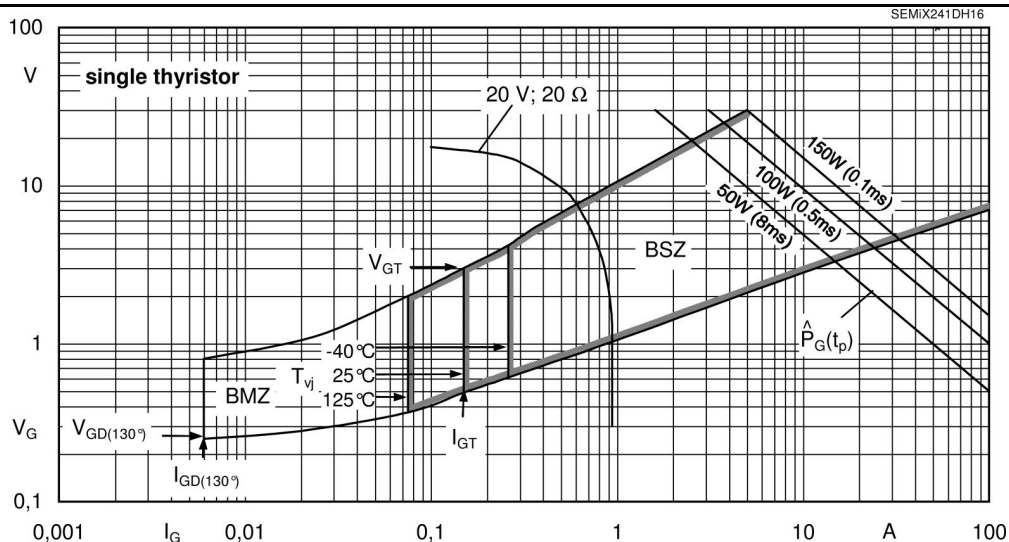
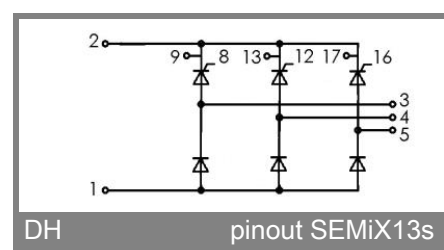
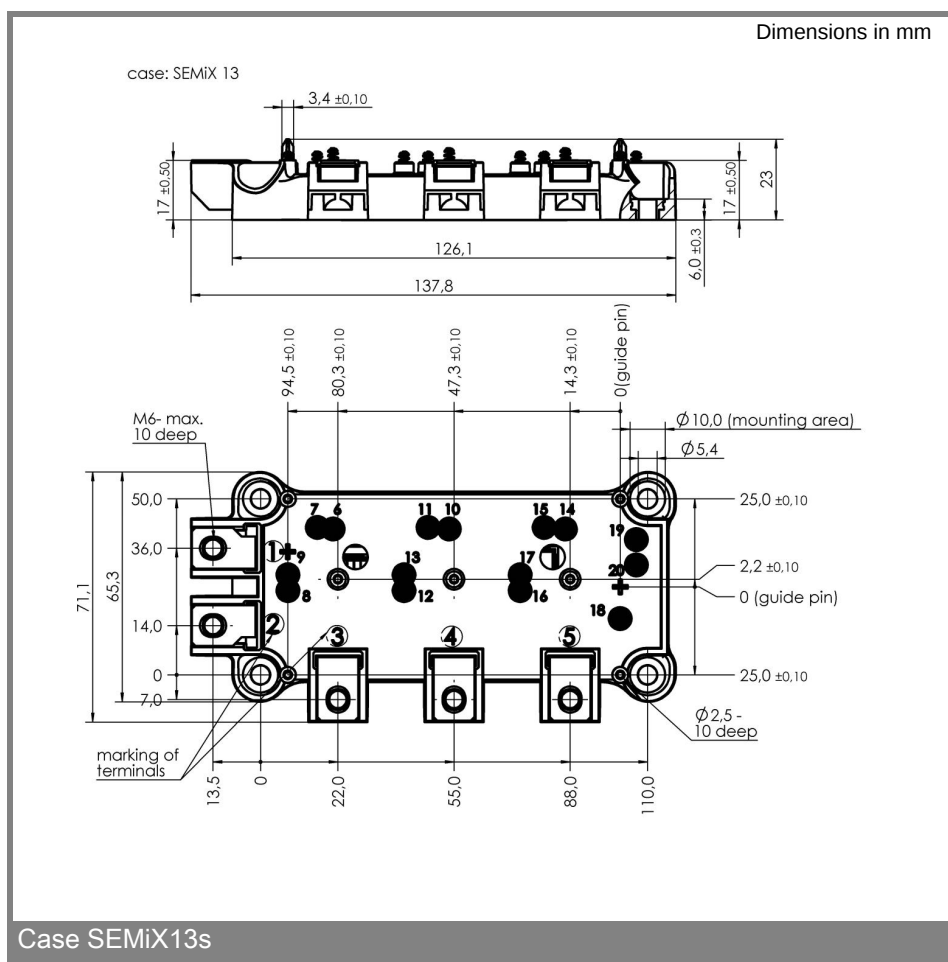


Fig.9 Gate trigger characteristics



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