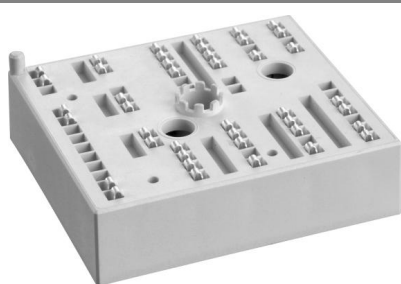


SKiiP 29ANB08V1



MiniSKiiP® 2

3-phase bridge rectifier +
brake chopper

SKiiP 29ANB08V1

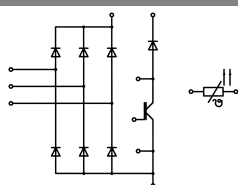
Target Data

Features

- Ultrafast NPT IGBTs
- Robust and soft freewheeling diodes in CAL technology
- Highly reliable spring contacts for electrical connections
- UL recognised file no. E63532

Typical Applications

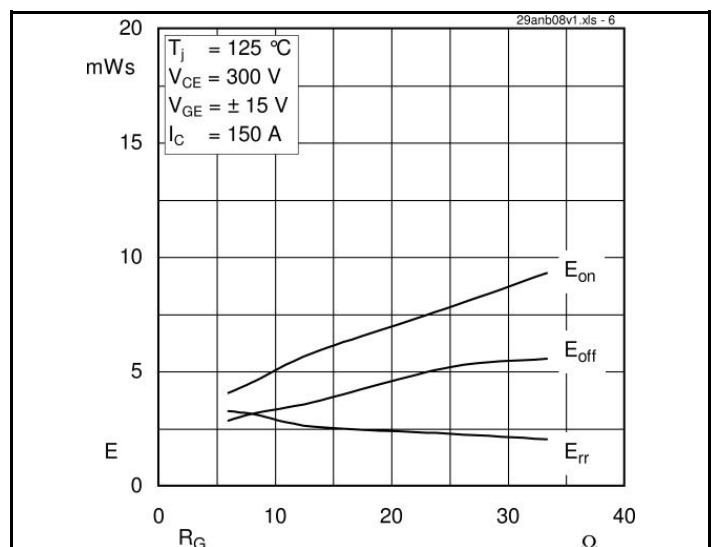
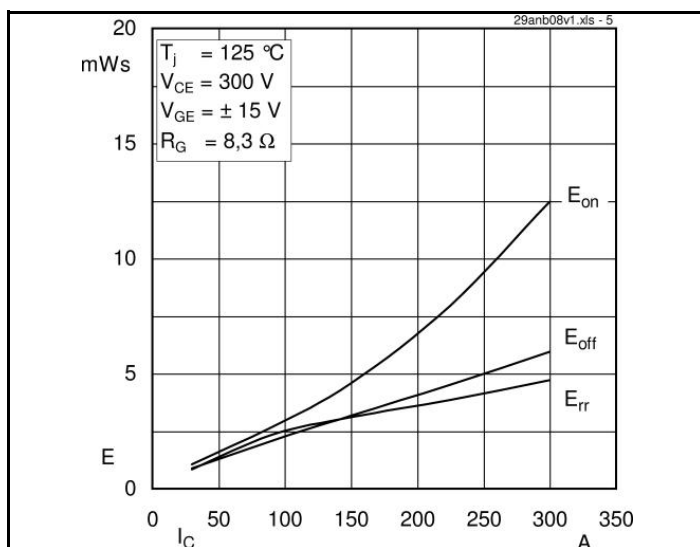
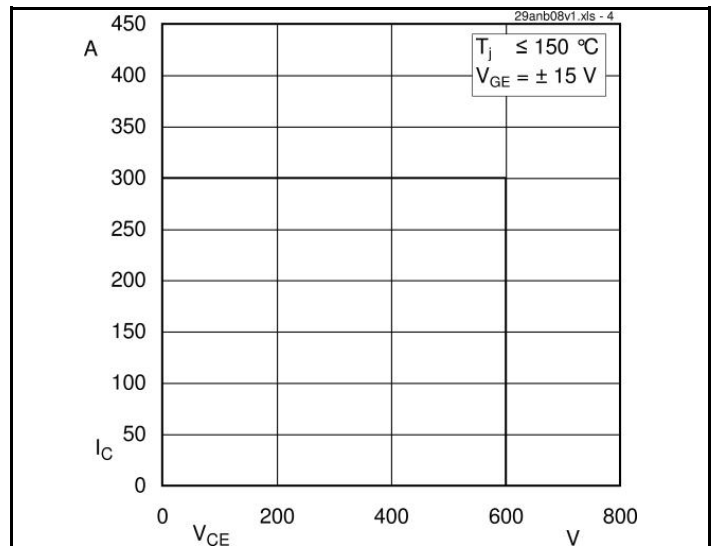
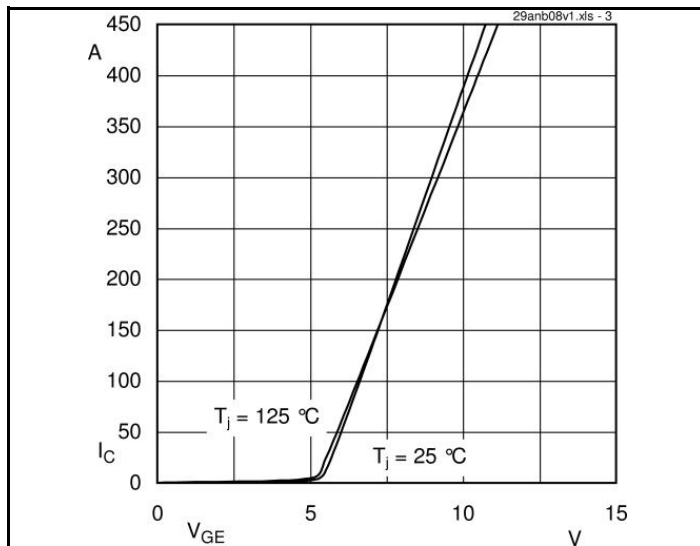
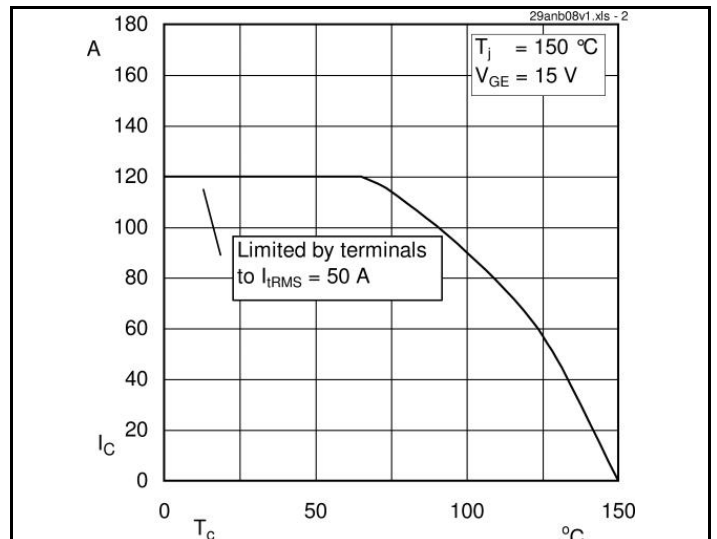
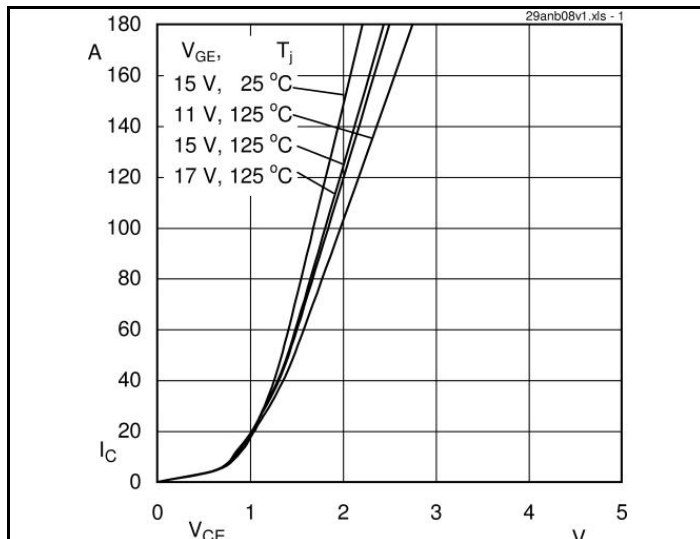
- Input bridge for Inverter up to 30 kVA

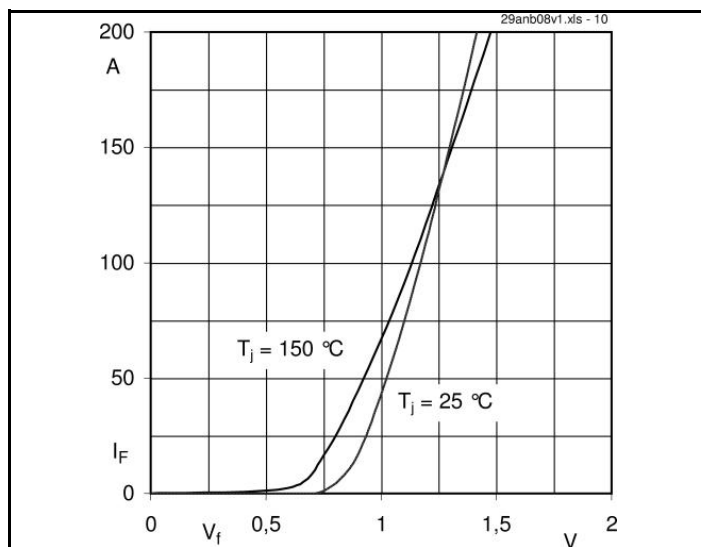
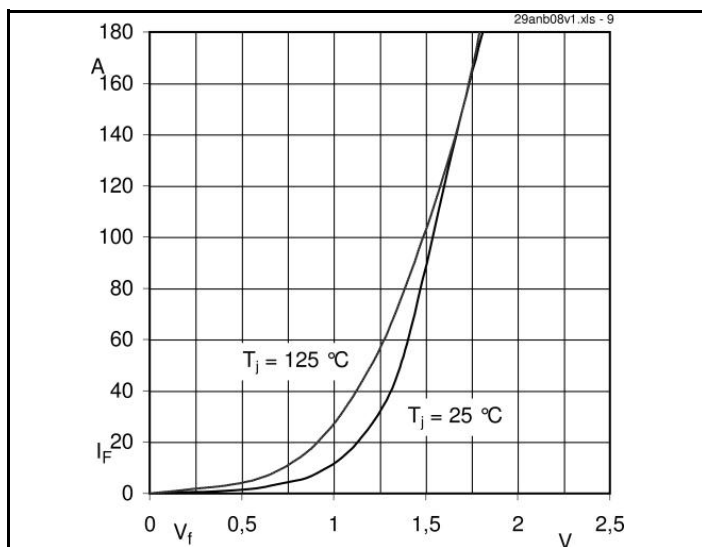
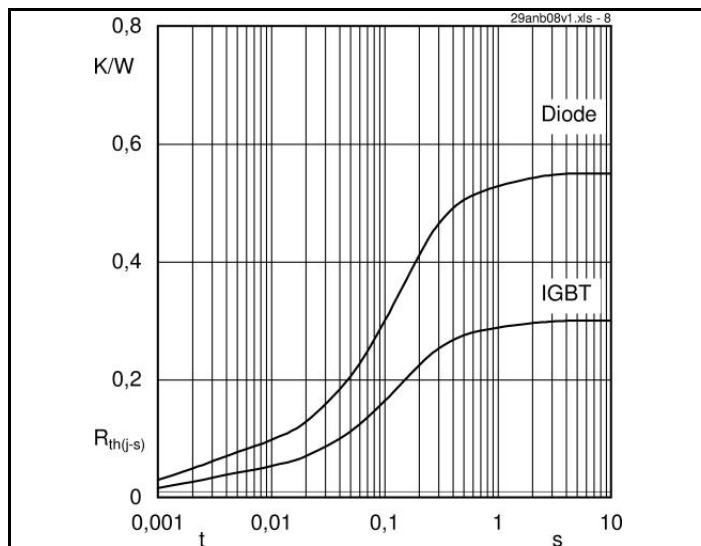
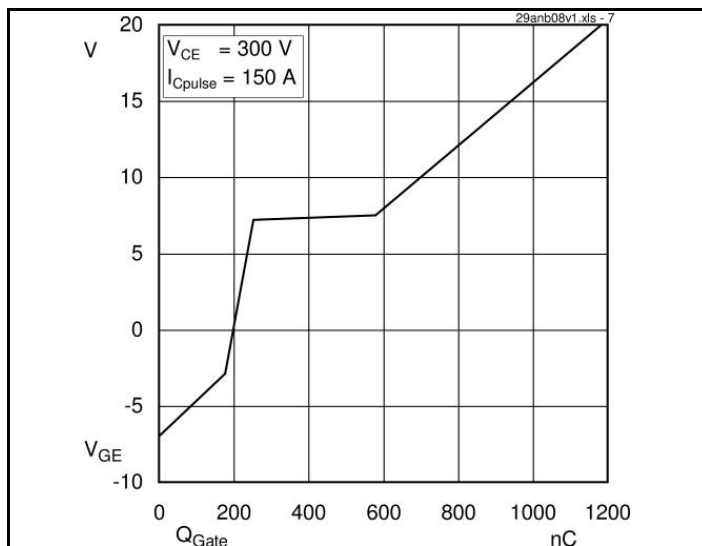


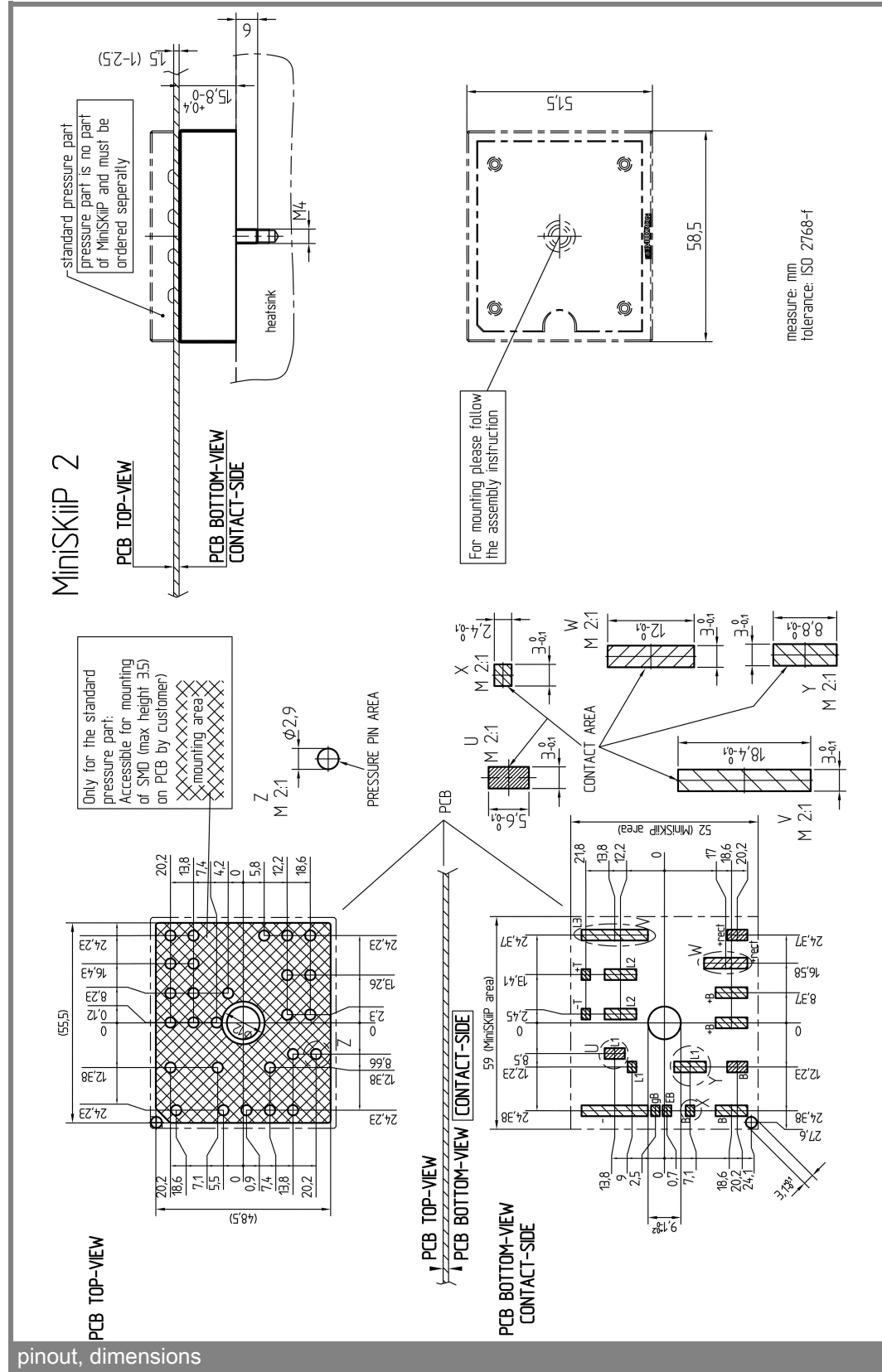
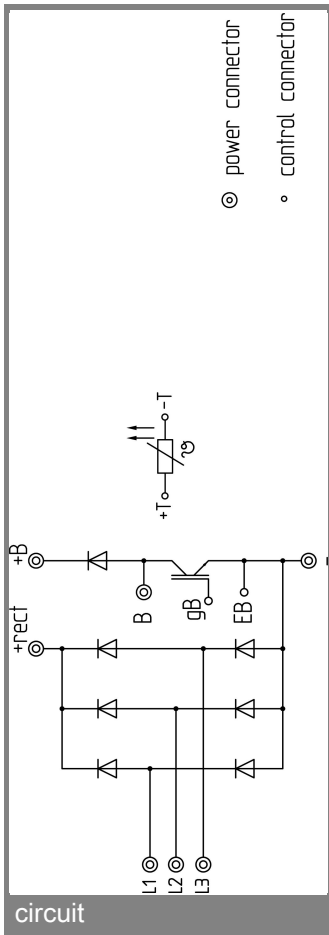
ANB

Absolute Maximum Ratings		$T_s = 25\text{ °C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
IGBT - Chopper			
V_{CES}		600	V
I_C	$T_s = 25\text{ (70) °C}$	150 (113)	A
I_{CRM}	$T_s = 25\text{ (70) °C}$, $t_p \leq 1\text{ ms}$	300 (226)	A
V_{GES}		± 15	V
T_j		- 40 ... + 150	°C
Diode - Chopper			
I_F	$T_s = 25\text{ (70) °C}$	117 (86)	A
I_{FRM}	$T_s = 25\text{ (70) °C}$, $t_p \leq 1\text{ ms}$	234 (172)	A
T_j		- 40 ... + 150	°C
Diode - Rectifier			
V_{RRM}		800	V
I_F	$T_s = 70\text{ °C}$	87	A
I_{FSM}	$t_p = 10\text{ ms}$, $\sin 180^\circ$, $T_j = 25\text{ °C}$	1150	A
i^2t	$t_p = 10\text{ ms}$, $\sin 180^\circ$, $T_j = 25\text{ °C}$	6600	A ² s
T_j		- 40 ... + 150	°C
I_{tRMS}	per power terminal (20 A / spring)	120	A
T_{stg}	$T_{op} \leq T_{stg}$	- 40 ... + 125	°C
V_{isol}	AC, 1 min.	2500	V

Characteristics		$T_s = 25\text{ °C}$, unless otherwise specified			
Symbol	Conditions	min.	typ.	max.	Units
IGBT - Chopper					
V_{CEsat}	$I_C = 150\text{ A}$, $T_j = 25\text{ (125) °C}$		2 (2,2)	2,5 (2,7)	V
$V_{GE(th)}$	$V_{GE} = V_{CE}$, $I_C = 1,5\text{ mA}$	3	4	5	V
$V_{CE(TO)}$	$T_j = 25\text{ (125) °C}$		1,2 (1,1)	1,3 (1,2)	V
r_T	$T_j = 25\text{ (125) °C}$		5,3 (7,3)	8 (10)	mΩ
C_{ies}	$V_{CE} = 25\text{ V}$, $V_{GE} = 0\text{ V}$, $f = 1\text{ MHz}$		8,1		nF
C_{oes}	$V_{CE} = 25\text{ V}$, $V_{GE} = 0\text{ V}$, $f = 1\text{ MHz}$		2,4		nF
C_{res}	$V_{CE} = 25\text{ V}$, $V_{GE} = 0\text{ V}$, $f = 1\text{ MHz}$		1,8		nF
$R_{th(j-s)}$	per IGBT		0,3		K/W
$t_{d(on)}$	under following conditions		45		ns
t_r	$V_{CC} = 300\text{ V}$, $V_{GE} = \pm 15\text{ V}$		40		ns
$t_{d(off)}$	$I_C = 150\text{ A}$, $T_j = 125\text{ °C}$		340		ns
t_f	$R_{Gon} = R_{Goff} = 8,5\text{ Ω}$		25		ns
E_{on}	inductive load		4,5		mJ
E_{off}			3,3		mJ
Diode - Chopper					
$V_F = V_{EC}$	$I_F = 150\text{ A}$, $T_j = 25\text{ (125) °C}$		1,7 (1,7)	2,1 (2,1)	V
$V_{(TO)}$	$T_j = 25\text{ (125) °C}$		1 (0,9)	1,1 (1)	V
r_T	$T_j = 25\text{ (125) °C}$		4,7 (5,3)	6,7 (7,3)	mΩ
$R_{th(j-s)}$	per diode		0,55		K/W
I_{RRM}	under following conditions		145		A
Q_{rr}	$I_F = 150\text{ A}$, $V_R = 300\text{ V}$		14		μC
E_{rr}	$V_{GE} = 0\text{ V}$, $T_j = 125\text{ °C}$ $di_F/dt = 4320\text{ A/μs}$		3,1		mJ
Diode - Rectifier					
V_F	$I_F = 75\text{ A}$, $T_j = 25\text{ °C}$		1,2		V
$V_{(TO)}$	$T_j = 150\text{ °C}$		0,8		V
r_T	$T_j = 150\text{ °C}$		7		mΩ
$R_{th(j-s)}$	per diode		0,65		K/W
Temperature Sensor					
R_{ts}	3 %, $T_r = 25\text{ (100) °C}$		1000(1670)		Ω
Mechanical Data					
w			65		g
M_s	Mounting torque	2		2,5	Nm







This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX.

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