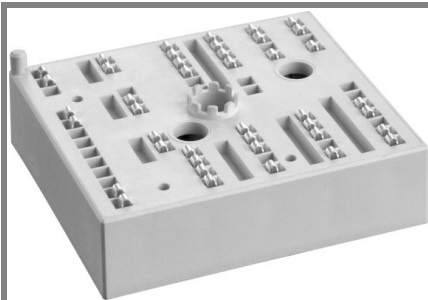


SKiiP 26AC12T4V1



MiniSKiiP®2

3-phase bridge inverter

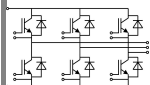
SKiiP 26AC12T4V1

Target Data

Features

- Trench 4 IGBT's
- Robust and soft freewheeling diodes in CAL technology
- Highly reliable spring contacts for electrical connections
- UL recognised file no. E63532

Typical Applications

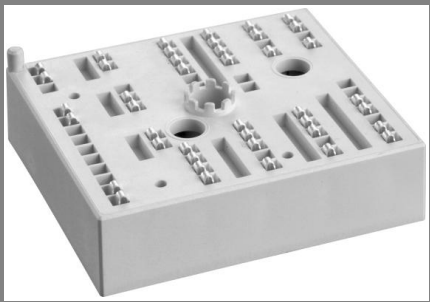


AC

Absolute Maximum Ratings			$T_c = 25\text{ }^{\circ}\text{C}$, unless otherwise specified	
Symbol	Conditions		Values	Units
IGBT				
V_{CES}	$T_j = 25\text{ }^{\circ}\text{C}$		1200	V
I_C	$T_j = 175\text{ }^{\circ}\text{C}$	$T_c = 25\text{ }^{\circ}\text{C}$	96	A
		$T_c = 70\text{ }^{\circ}\text{C}$	78	A
I_{CRM}	$I_{CRM} = 3 \times I_{Cnom}$		225	A
V_{GES}			± 20	V
t_{psc}	$V_{CC} = 600\text{ V}; V_{GE} \leq 20\text{ V}; T_j = 150\text{ }^{\circ}\text{C}$ $V_{CES} < 1200\text{ V}$		10	μs
Inverse Diode				
I_F	$T_j = 175\text{ }^{\circ}\text{C}$	$T_c = 25\text{ }^{\circ}\text{C}$	83	A
		$T_c = 70\text{ }^{\circ}\text{C}$	66	A
I_{FRM}	$I_{CRM} = 3 \times I_{Cnom}$		225	A
I_{FSM}	$t_p = 10\text{ ms}; \sin.$	$T_j = 150\text{ }^{\circ}\text{C}$	429	A
Module				
$I_{t(RMS)}$			100	A
T_{vj}			-40...+175	$^{\circ}\text{C}$
T_{stg}			-40...+125	$^{\circ}\text{C}$
V_{isol}	AC, 1 min.		2500	V

Characteristics			T _c = 25 °C, unless otherwise specified			
Symbol	Conditions		min.	typ.	max.	Units
IGBT						
V _{GE(th)}	V _{GE} = V _{CE} , I _C = mA		5	5,8	6,5	V
I _{CES}	V _{GE} = V, V _{CE} = V _{CES} T _j = °C					mA
V _{CE0}				1,1	1,3	V
				1	1,2	V
r _{CE}	V _{GE} = 15 V			10	10	mΩ
				17	17	mΩ
V _{CE(sat)}	I _{Cnom} = 75 A, V _{GE} = 15 V			1,85	2,05	V
				2,25	2,45	V
C _{ies}	V _{CE} = , V _{GE} = V f = MHz					nF
C _{oes}						nF
C _{res}						nF
R _{Gint}	T _j = 25 °C		0			Ω
t _{d(on)}	R _{Gon} =	V _{CC} = 600V I _{Cnom} = 75A T _j = 150 °C V _{GE} = ±15V	8,5			ns
t _r						ns
E _{on}						mJ
t _{d(off)}	R _{Goff} =					ns
t _f						ns
E _{off}						5,5
R _{th(j-s)}	per IGBT		0,52			K/W

SKiiP 26AC12T4V1



MiniSKiiP[®]2

3-phase bridge inverter

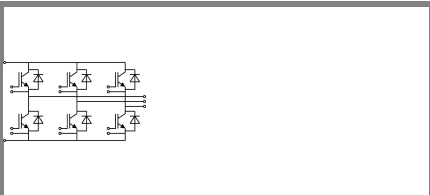
SKiiP 26AC12T4V1

Target Data

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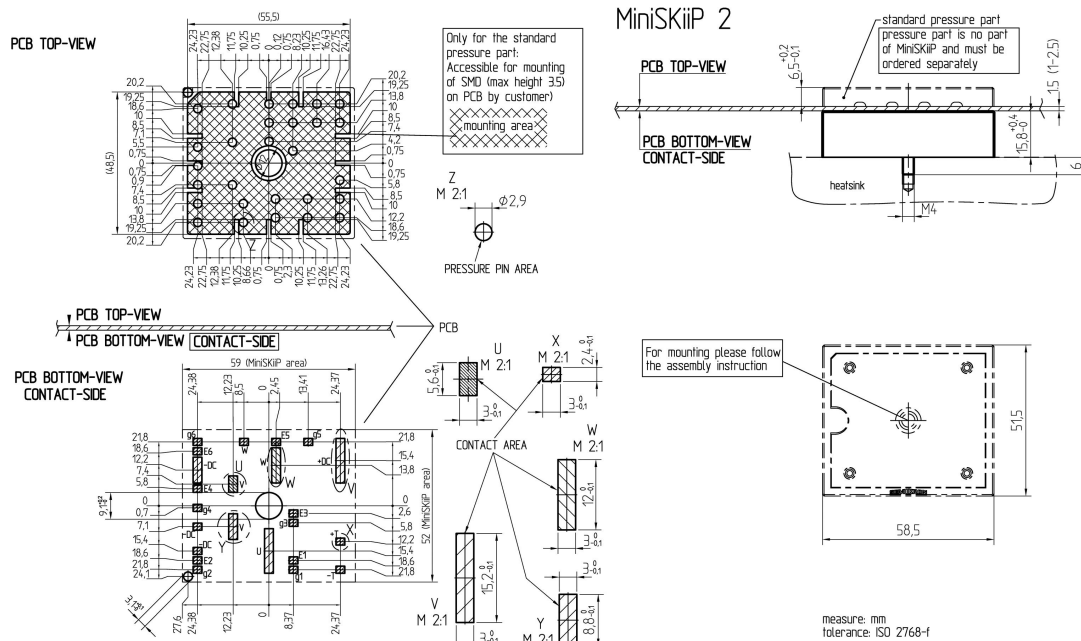


AC

Characteristics						
Symbol	Conditions		min.	typ.	max.	Units
Inverse Diode						
V _F = V _{EC}	I _{Fnom} = 75 A; V _{GE} = V	T _j = 25 °C _{chiplev.}		2,2	2,5	V
		T _j = 150 °C _{chiplev.}		2,1	2,45	V
V _{F0}		T _j = 25 °C		1,3	1,5	V
		T _j = 150 °C		0,9	1,1	V
r _F		T _j = 25 °C		12	13	mΩ
		T _j = 150 °C		15	18	mΩ
I _{RRM}	I _{Fnom} = A	T _j = °C				A
Q _{rr}	V _{GE} = ±15V					μC
E _{rr}			5,6			mJ
R _{th(j-s)}	per diode		0,74			K/W
M _s	to heat sink					Nm
M _t	to terminals		2		2,5	Nm
w			65			g
Temperature sensor						
R _{ts}	3%, Tr = 25°C		1000			Ω
R _{ts}	3%, Tr = 100°C		1670			Ω

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.



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