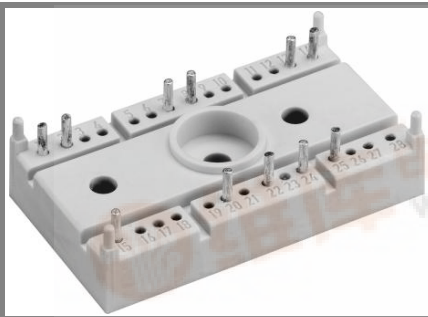


# SK 30 GH 067



SEMITOP® 3

## IGBT Module

### SK 30 GH 067

#### Target Data

#### Features

- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonding aluminium oxide ceramic (DBC)
- Hyper fast NPT IGBT
- N-channel homogeneous silicon structure (NPT-Non punch-through IGBT)
- Positive Vcesat temperature coefficient (Easy paralleling)
- Low threshold voltage
- Low tail current with low temperature dependence

#### Typical Applications

- Switching (not for linear use)
- High Frequencies Applications
- Welding Generator
- Switched mode power supplies
- UPS

Absolute Maximum Ratings		T <sub>s</sub> = 25 °C, unless otherwise specified		
Symbol	Conditions	Values		Units
<b>IGBT</b>				
V <sub>CES</sub>		600		V
V <sub>GES</sub>		± 20		V
I <sub>C</sub>	T <sub>s</sub> = 25 (80) °C;	45 (30)		A
I <sub>CM</sub>	t <sub>p</sub> < 1 ms; T <sub>s</sub> = 25 (80) °C;	90 (60)		A
T <sub>j</sub>		- 40 ... + 150		°C
<b>Inverse / Freewheeling Diode</b>				
I <sub>F</sub>	T <sub>s</sub> = 25 (80) °C;	48 (30)		A
I <sub>FM</sub> = - I <sub>CM</sub>	t <sub>p</sub> < 1 ms; T <sub>s</sub> = 25 (80) °C;	96 (60)		A
T <sub>j</sub>		- 40 ... + 150		°C
T <sub>stg</sub>		- 40 ... + 125		°C
T <sub>sol</sub>	Terminals, 10 s	260		°C
V <sub>isol</sub>	AC 50 Hz, r.m.s. 1 min. / 1 s	2500 / 3000		V

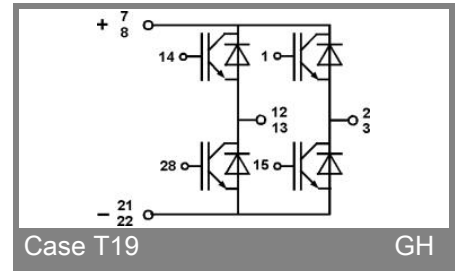
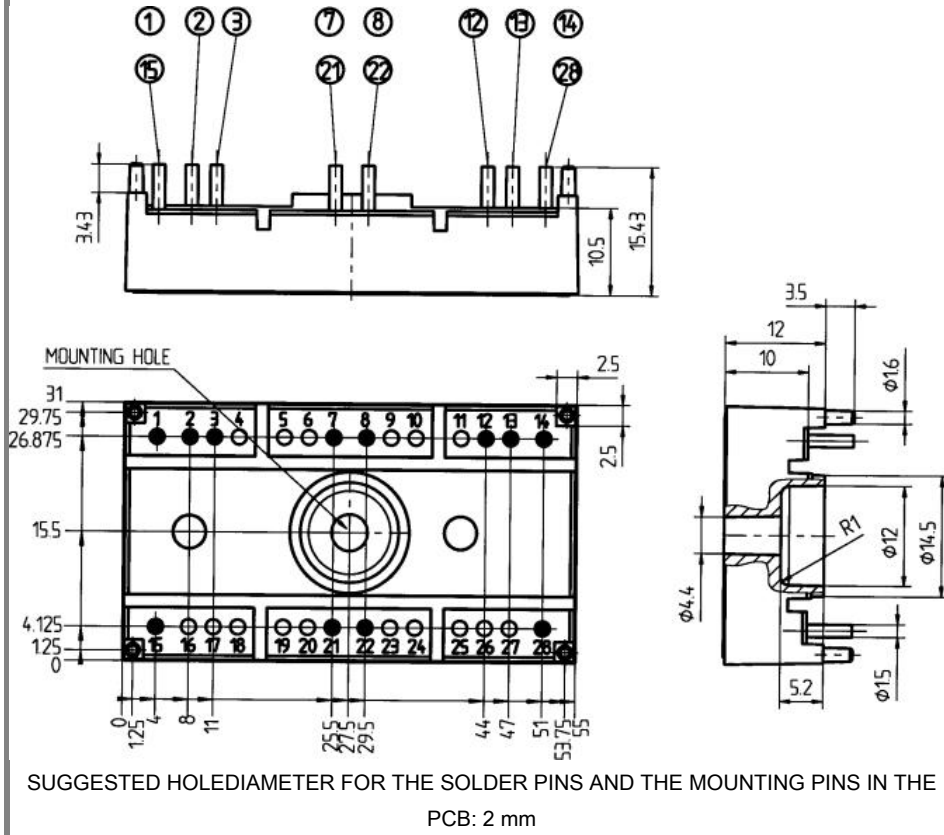
Characteristics		T <sub>s</sub> = 25 °C, unless otherwise specified			
Symbol	Conditions	min.	typ.	max.	Units
<b>IGBT</b>					
V <sub>CE(sat)</sub>	I <sub>C</sub> = 60 A, T <sub>j</sub> = 25 (125) °C		2,8 (3,5)		V
V <sub>GE(th)</sub>	V <sub>CE</sub> = V <sub>GE</sub> ; I <sub>C</sub> = 0,0014 A	3	4	5	V
C <sub>ies</sub>	V <sub>CE</sub> = 25 V; V <sub>GE</sub> = 0 V; 1 MHz		3		nF
R <sub>th(j-s)</sub>	per IGBT			0,85	K/W
	per module				K/W
t <sub>d(on)</sub>	under following conditions: V <sub>CC</sub> = 400 V, V <sub>GE</sub> = ± 15 V				ns
t <sub>r</sub>	I <sub>C</sub> = 60 A, T <sub>j</sub> = 125 °C				ns
t <sub>d(off)</sub>	R <sub>Gon</sub> = R <sub>Goff</sub> = 11 Ω				ns
t <sub>f</sub>					ns
E <sub>on</sub> + E <sub>off</sub>	Inductive load		3,4		mJ
<b>Inverse / Freewheeling Diode</b>					
V <sub>F</sub> = V <sub>EC</sub>	I <sub>F</sub> = 30 A; T <sub>j</sub> = 25 (150) °C		1,1		V
V <sub>(TO)</sub>	T <sub>j</sub> = (125) °C		(0,85)		V
r <sub>T</sub>	T <sub>j</sub> = (125) °C		(7,1)		mΩ
R <sub>th(j-s)</sub>				1,8	K/W
I <sub>RRM</sub>	under following conditions: I <sub>F</sub> = A; V <sub>R</sub> = 300 V				A
Q <sub>rr</sub>	di <sub>F</sub> /dt = A/μs				μC
E <sub>off</sub>	V <sub>GE</sub> = 0 V; T <sub>j</sub> = 125 °C				mJ
<b>Mechanical data</b>					
M1	mounting torque	2,3		2,5	Nm
w			30		g
Case	SEMITOP® 3		T 19		



# SK 30 GH 067

UL Recognized  
File no. E 63532

Dimensions in mm



Case T19

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.