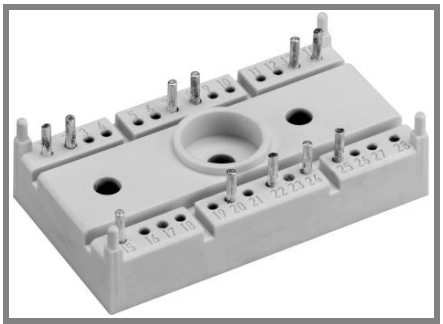
SK 30 GARL 067 E



SEMITOP® 3

IGBT Module

SK 30 GARL 067 E

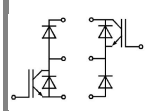
Target Data

Features

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

Typical Applications

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



GARL - E

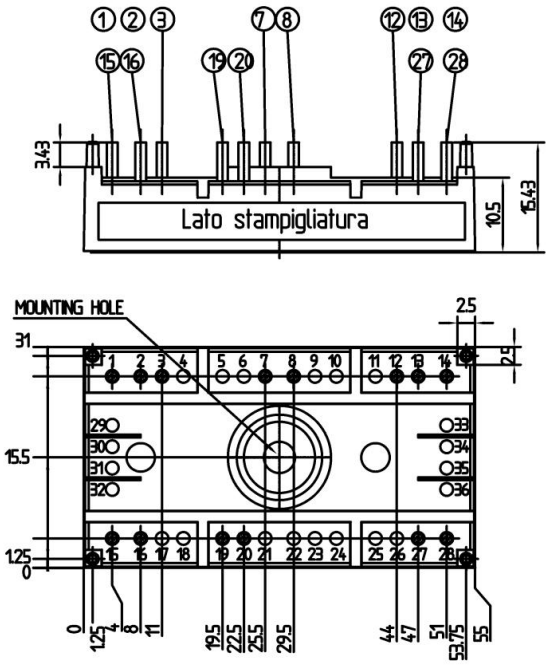
Absolute Maximum Ratings		T_s = 25 °C, unless otherwise specified	
Symbol	**Conditions**	**Values**	**Units**
IGBT			
V_{CES}		600	V
V_{GES}		± 20	V
I_C	T_s = 25 (80) °C;	45 (30)	A
I_{CM}	t_p < 1 ms; T_s = 25 (80) °C;	90 (60)	A
T_j		- 40 ... + 150	°C
Freewheeling Diode			
I_F	T_s = 25 (80) °C;	45 (30)	A
I_{FM} = - I_{CM}	t_p < 1 ms; T_s = 25 (80) °C;	90 (60)	A
T_j		- 40 ... + 150	°C
T_{stg}		- 40 ... + 125	°C
T_{sol}	Terminals, 10 s	260	°C
V_{isol}	AC 50 Hz, r.m.s. 1 min. / 1 s	2500 / 3000	V

Characteristics		T_s = 25 °C, unless otherwise specified			
Symbol	**Conditions**	**min.**	**typ.**	**max.**	**Units**
IGBT					
$V_{CE(sat)}$	I_C = 60 A, T_j = 25 (125) °C		2,8 (3,5)		V
$V_{GE(th)}$	V_{CE} = V_{GE}; I_C = 0,0014 A	3	4	5	V
C_{ies}	V_{CE} = 25 V; V_{GE} = 0 V; 1 MHz		3		nF
$R_{th(j-s)}$	per IGBT			0,85	K/W
	per module				K/W
	under following conditions:				
$t_{d(on)}$	V_{CC} = 400 V , V_{GE} = ± 15 V		32		ns
t_r	I_C = 60 A, T_j = 125 °C		20		ns
$t_{d(off)}$	R_{Gon} = R_{Goff} = 11 Ω		340		ns
t_f			30		ns
E_{on} + E_{off}	Inductive load		3,4		mJ
Freewheeling Diode					
V_F = V_{EC}	I_F = 60 A; T_j = 25 (150) °C		(1,25)	2	V
$V_{(TO)}$	T_j = (150) °C		(1)		V
r_T	T_j = (150) °C		(9)		mΩ
$R_{th(j-s)}$				1,6	K/W
	under following conditions:				
I_{RRM}	I_F = 30 A; V_R = 400 V		18		A
Q_{rr}	dI_F/dt = -100 A/µs		1,5		µC
E_{off}	V_{GE} = 0 V; T_j = 125 °C				mJ
Mechanical data					
M1	mounting torque	2,3		2,5	Nm
w			30		g
Case	SEMITOP® 3		T 69		

SK 30 GARL 067 E

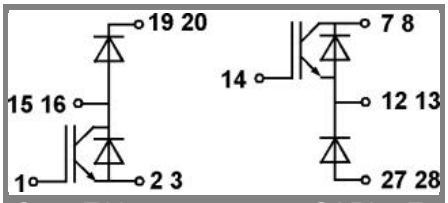
UL Recognized
File no. E 63 532

Dimensions in mm



SUGGESTED HOLEDIAMETER FOR THE SOLDER PINS AND THE MOUNTING PINS IN THE PCB: 2 mm

Suggsted hole diameter for the solder pins and the mounting pins in the PCB: 2mm



Case T69 GARL - E

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.

