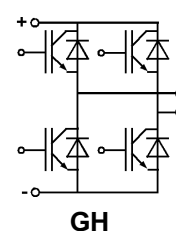
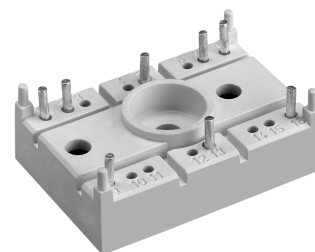


SEMITOP® 2 IGBT Module

SK 15 GH 063



Absolute Maximum Ratings			
Symbol	Conditions ¹⁾	Values	Units
V_{CES}		600	V
V_{GES}		± 20	V
I_C	$T_h = 25/80\text{ }^\circ\text{C}$	20 / 14	A
I_{CM}	$t_p < 1\text{ ms}; T_h = 25/80\text{ }^\circ\text{C}$	40 / 28	A
$I_F = -I_C$	$T_h = 25/80\text{ }^\circ\text{C}$	22 / 15	A
$I_{FM} = -I_{CM}$	$t_p < 1\text{ ms}; T_h = 25/80\text{ }^\circ\text{C}$	44 / 30	A
T_j		- 40 ... + 150	$^\circ\text{C}$
T_{stg}		- 40 ... + 125	$^\circ\text{C}$
T_{sol}	Terminals, 10 s	260	$^\circ\text{C}$
V_{isol}	AC, 1 min	2500	V

Characteristics					
Symbol	Conditions ¹⁾	min.	typ.	max.	Units
V_{CEsat}	$I_C = 15\text{ A}; T_j = 25\text{ (125)}\text{ }^\circ\text{C}$	-	2,1(2,2)	2,7(2,8)	V
$t_{d(on)}$	$V_{CC} = 300\text{ V}; V_{GE} = \pm 15\text{ V}$ $I_C = 15\text{ A}, T_j = 125\text{ }^\circ\text{C}$ $R_{Gon} = R_{Goff} = 68\text{ }\Omega$ inductive load	-	35	-	ns
t_r		-	50	-	ns
$t_{d(off)}$		-	250	-	ns
t_f		-	500	-	ns
$E_{on} + E_{off}$		-	2,2	-	mJ
C_{ies}	$V_{CE} = 25\text{ V}; V_{GE} = 0\text{ V}, 1\text{ MHz}$	-	0,8	-	nF
R_{thjh} ³⁾	per IGBT	-	-	1,9	K/W
Inverse Diode ²⁾					
$V_F = V_{EC}$	$I_F = 10\text{ A}; T_j = 25\text{ (125)}\text{ }^\circ\text{C}$	-	1,45(1,4)	1,7(1,7)	V
V_{TO}	$T_j = 125\text{ }^\circ\text{C}$	-	0,85	0,9	V
r_T	$T_j = 125\text{ }^\circ\text{C}$	-	55	80	$\text{m}\Omega$
I_{RRM}	$I_F = 10\text{ A}; V_R = 300\text{ V}$ $di_F/dt = -200\text{ A}/\mu\text{s}$ $V_{GE} = 0\text{ V}; T_j = 125\text{ }^\circ\text{C}$	-	13	-	A
Q_{rr}		-	1,5	-	μC
E_{off}		-	0,45	-	mJ
R_{thjh} ³⁾		per Diode	-	-	2,3
Mechanical Data					
M_1	mounting torque	-	-	2,0	Nm
w		-	19	-	g
Case			T 5		

Features

- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- N channel homogeneous silicon structure (NPT-Non punch-through IGBT)
- High short circuit capability
- Low tail current with low temperature dependence
- UL recognized, file no. E 63 532

Typical Applications

- Switching (not for linear use)
- Inverter
- Switched mode power supplies
- UPS

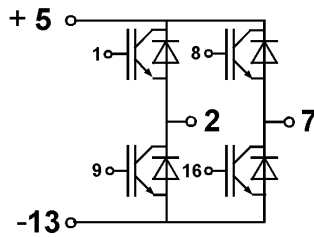
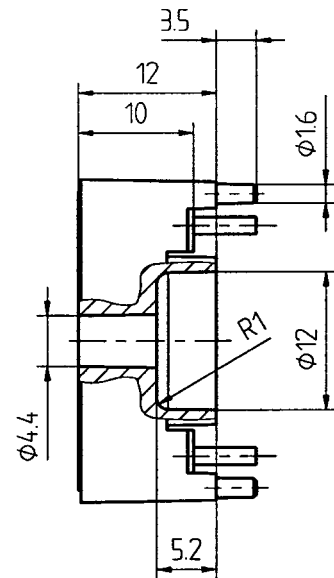
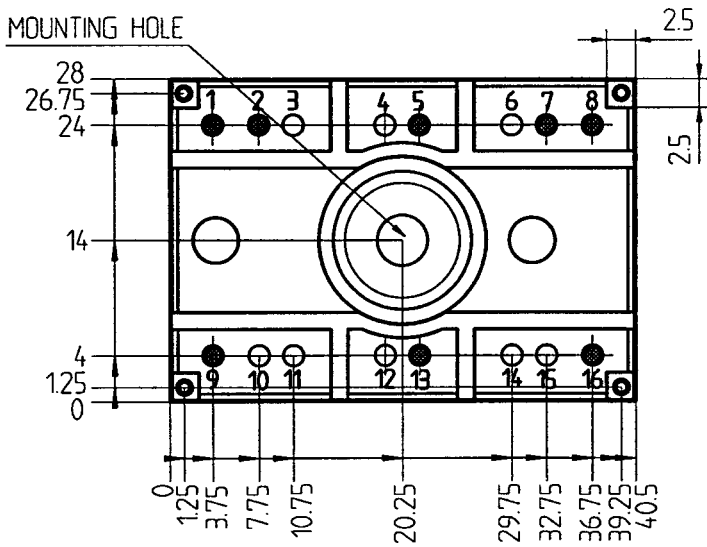
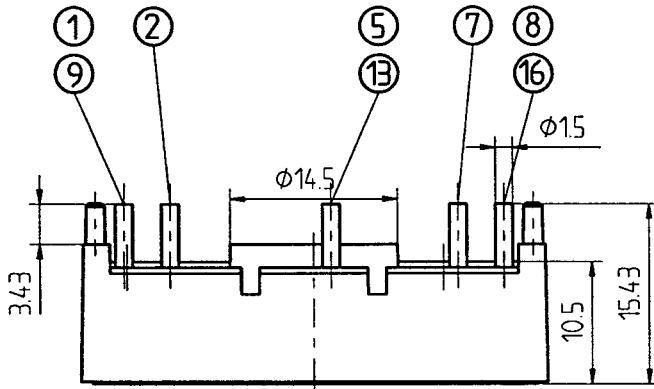
¹⁾ $T_h = 25\text{ }^\circ\text{C}$, unless otherwise specified

²⁾ CAL = Controlled Axial Lifetime Technology (soft and fast recovery)

³⁾ Thermal resistance junction to heatsink

SEMITOP® 2
SK 15 GH 063

Case T 5



Dimensions in mm

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