Absolute Maximum Ratings

Symbol	Conditions [1]	Values	Units
V_{CES}		600	V
V_{GES}		± 20	V
I_C	T_h = 25/80 °C	30 / 21	A
I_{CM}	t_p < 1 ms; T_h = 25/80 °C	60 / 42	A
$I_F = -I_C$	T_h = 25/80 °C	36 / 24	A
$I_{FM} = -I_{CM}$	t_p < 1 ms; T_h = 25/80 °C	72 / 48	A
T_j, (T_{stg})		- 40 ... +(125) 150	°C
T_{sol}	Terminals, 10 s	260	°C
V_{isol}	AC, 1 min	2500	V

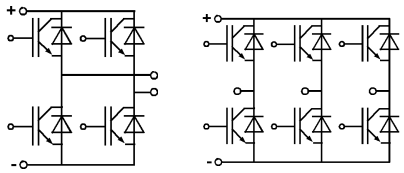
Characteristics

Symbol	Conditions [1]	min.	typ.	max.	Units
V_{CEsat}	I_C = 30 A; T_j = 25 (125) °C	–	2,1	–	V
$t_{d(on)}$	V_{CC} = 300 V; V_{GE} = ± 15 V	–	38	–	ns
t_r	I_C = 30 A, T_j = 125 °C	–	50	–	ns
$t_{d(off)}$	$R_{Gon} = R_{Goff}$ = 33 Ω	–	210	–	ns
t_f	inductive load	–	20	–	ns
$E_{on} + E_{off}$		–	2,4	–	mJ
C_{ies}	V_{CE} = 25 V; V_{GE} = 0 V, 1 MHz	–	1,6	–	nF
R_{thjh}	per IGBT	–	–	1,4	K/W
Inverse Diode [2]					
$V_F = V_{EC}$	I_F = 25 A; T_j = 25 (125) °C	–	1,5(1,3)	1,7(1,7)	V
V_{TO}	T_j = 125 °C	–	0,85	0,9	V
r_T	T_j = 125 °C	–	18	32	mΩ
I_{RRM}	I_F = 18 A; V_R = 300 V	–	18	–	A
Q_{rr}	di_F/dt = - 500 A/µs	–	1,8	–	µC
E_{off}	V_{GE} = 0 V; T_j = 125 °C	–	0,55	–	mJ
R_{thjh}	per Diode	–	–	1,7	K/W
Mechanical Data					
M1	case to heatsink, SI units	–	–	–	–
	SK 25 GH 063	–	–	2	Nm
	SK 25 GD 063	–	–	–	Nm
w	SK 25 GH 063	–	–	–	g
	SK 25 GD 063	–	–	–	g
Case	SK 25 GH 063 SEMITOP® 2 SK 25 GD 063 SEMITOP® 3	→ B 17 – 24			

SEMITOP®
IGBT Module

SK 25 GH 063
SK 25 GD 063

Preliminary Data



GH **GD**

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

Typical Applications

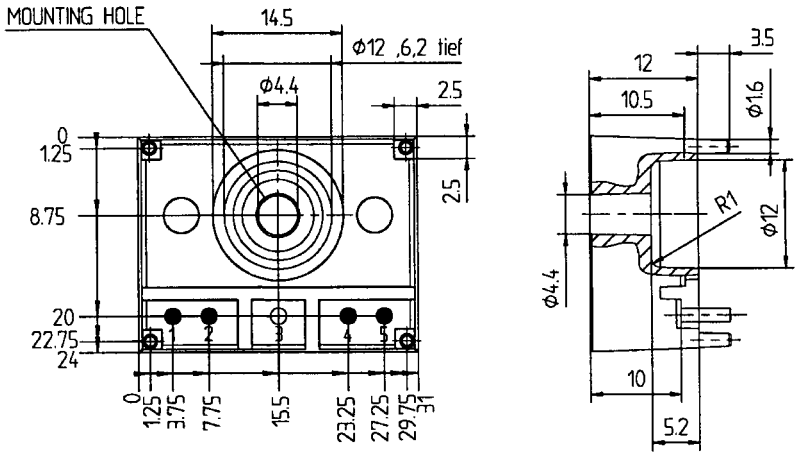
- Switching (not for linear use)
- Inverter
- Switched mode power supplies
- UPS

[1] T_h = 25 °C, unless otherwise specified
[2] CAL = Controlled Axial Lifetime Technology (soft and fast recovery)

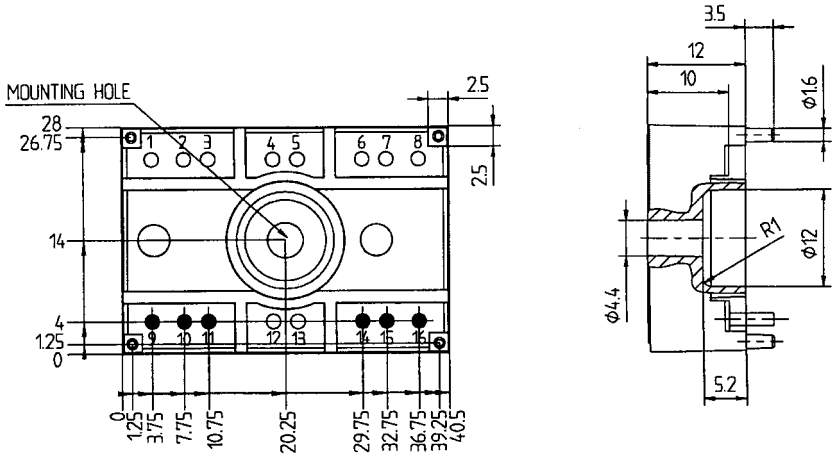
Case → B17 – 24

SEMITOP® Cases

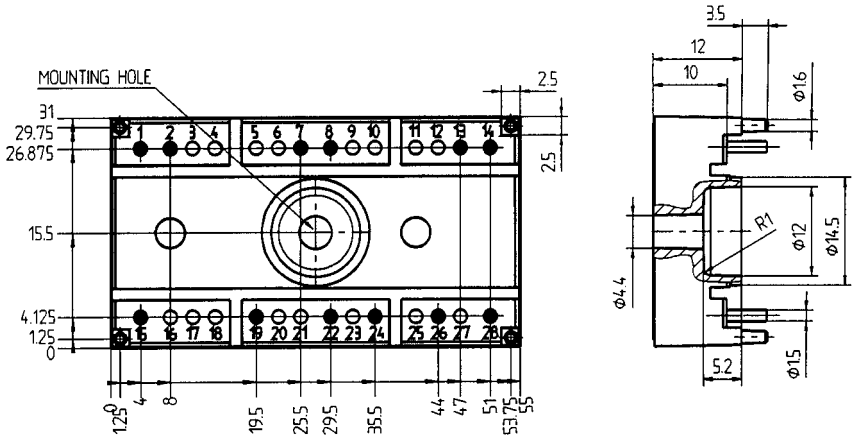
SEMITOP® 1



SEMITOP® 2



SEMITOP® 3



Dimensions in mm

