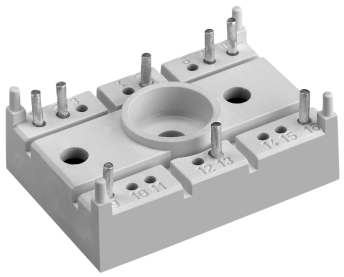
V_{RSM} V	V_{RRM} V_{DRM} V	I_{TAV} (maximum values for cont. operation) (T_h = 85 °C) 45 A
1300	1200	**SK 60 KL 12 F** [1]

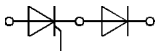
Symbol	Conditions	Values	Units
I_{TAV}/I_{FAV}	sin. 180°;T_h = 80 °C	65 / 47	A
	T_h = 85 °C	60 / 45	A
T_{stg}		– 40 ... +125	°C
T_{solder}	terminals, 10 s	260	°C
I_{TSM}/I_{FSM}	T_{vj} = 25 °C; 10 ms	–	A
	T_{vj} = 125 °C; 10 ms	1800 / 800	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	–	A^2s
	T_{vj} = 125 °C; 8,3 ... 10 ms	3160	A^2s
Thyristor			
t_{gd}	T_{vj} = 25 °C; I_G = 1A; di_G/dt = 1 A / µs	1	µs
t_{gr}	V_D = 0,67 V_{DRM}	2	µs
$(dv/dt)_{cr}$	T_{vj} = 125 °C	1000	V/µs
$(di/dt)_{cr}$	T_{vj} = 125 °C; f = 50 ... 60 Hz	50	A/µs
t_q	T_{vj} = 125 °C; typ.	80	µs
I_H	T_{vj} = 25 °C; typ. / max.	100 / 200	mA
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ. / max.	200 / 500	mA
V_T	T_{vj} = 25 °C; (I_T = 300 A); max.	1,85	V
$V_{T(T0)}$	T_{vj} = 125 °C	0,9	V
r_T	T_{vj} = 125 °C	3,5	mΩ
I_{DD}; I_{RD}	T_{vj} = 125 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	20	mA
V_{GT}	T_{vj} = 25 °C; dc	2	V
I_{GT}	T_{vj} = 25 °C; dc	100	mA
V_{GD}	T_{vj} = 125 °C; dc	0,25	V
I_{GD}	T_{vj} = 125 °C; dc	5	mA
R_{thjh} [2]	cont. / sin. 180° p. thyristor	0,45 / 0,47	K/W
T_{vj}		– 40 ... + 125	°C
Diode			
V_F	T_{vj} = 25 °C; (I_F = 100 A); max.	2,5	V
$V_{(T0)}$	T_{vj} = 125 °C	1,2	V
r_T	T_{vj} = 125 °C	11	mΩ
I_R	T_{vj} = 150 °C; V_{RD} = V_{RRM}	8	mA
R_{thjh} [2]		0,6	K/W
T_{vj}		– 40 ... +150	°C
Mechanical Data			
V_{isol}	a.c. 50 Hz; r.m.s.; 1 s / 1 min	3000 / 2500	V
M_1	mounting torque	2	Nm
W		19	g
Case		T 29	

SEMITOP® 2

Thyristor/Diode Module

SK 60 KL 12 F [1]





KL

Features

- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Glass passivated thyristor chips
- High surge currents
- Fast & soft CAL-diode [1]
- UL recognized, file no. E 63 532

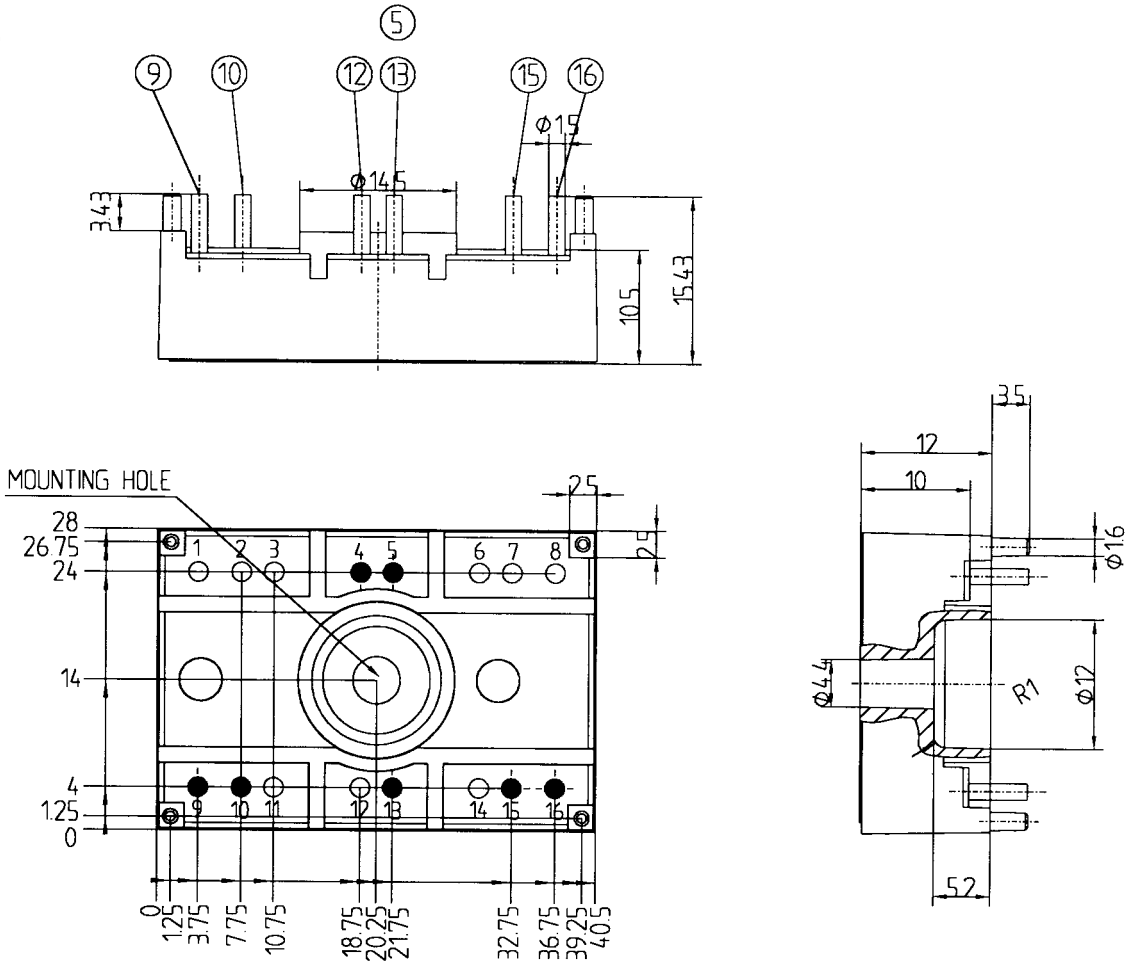
Typical Applications

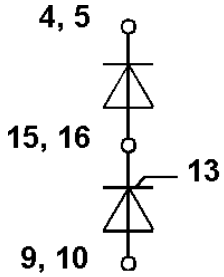
- UPS

[1] CAL (Controlled axial lifetime) technology
[2] Thermal resistance junction to heatsink

SEMITOP® 2
SK 60 KL 12 F

Case T 29





Dimensions in mm