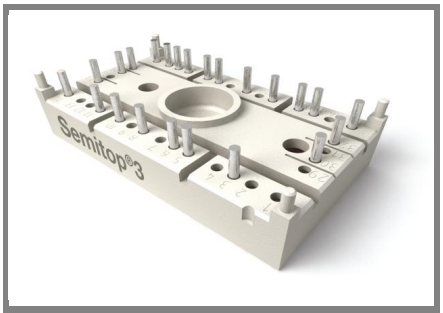
SK 80 TAA



SEMITOP®3

Thyristor module

SK 80 TAA

Target Data

Features

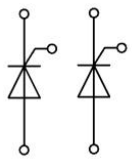
- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide (DCB)
- Glass passivated thyristor chips
- Up to 1600V reverse voltage
- High surge currents

Typical Applications

- Motor drives
- Controlled battery chargers

V_{RSM} V	V_{RRM}, V_{DRM} V	I_D = 81 A (full conduction) (T_S = 80 °C)
900	800	SK 80 TAA 08.
1300	1200	SK 80 TAA 12
1700	1600	SK 80 TAA 16

Symbol	Conditions	Values	Units
I_D	T_s = 80 °C	81	A
I_{TSM}	T_{vj} = 25 °C; 10 ms	2000	A
	T_{vj} = 125 °C; 10 ms	1800	A
i²t	T_{vj} = 25 °C; half sine wave, 10 ms	20000	A²s
	T_{vj} = 25 °C; half sine wave,10 ms	16200	A²s
V_T	T_{vj} = 25 °C; I_T = 300 A	max. 1,85	V
$V_{T(T0)}$	T_{vj} = 125 °C;	max. 0,85	V
r_T	T_{vj} = 125 °C	max. 3,5	mΩ
I_{DD}; I_{RD}	T_{vj} = 125 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	max. 10	mA
t_{gd}	T_{vj} = 25 °C; I_G = 1 A; 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	max. 1000	V/µs
$(di/dt)_{cr}$	T_{vj} = 125 °C; f = 50 ... 60 Hz	max. 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	200 / 500	mA
V_{GT}	T_{vj} = 25 °C; d.c.	min. 2	V
I_{GT}	T_{vj} = 25 °C; d.c.	min. 100	mA
V_{GD}	T_{vj} = 125 °C; d.c.	max. 0,25	V
I_{GD}	T_{vj} = 125 °C; d.c.	max. 5	mA
$R_{th(j-s)}$	cont.per thyristor	0,45	K/W
	sin. 180° per thyristor	0,47	K/W
T_{solder}	Terminals, 10s	260	°C
T_{vj}		-40 ... +125	°C
T_{stg}		-40 ... +125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3000 (2500)	V
M_s	Mounting torque to heatsink	typ. 2,5	Nm
m		30	g
Case	SEMITOP®2	T 86	



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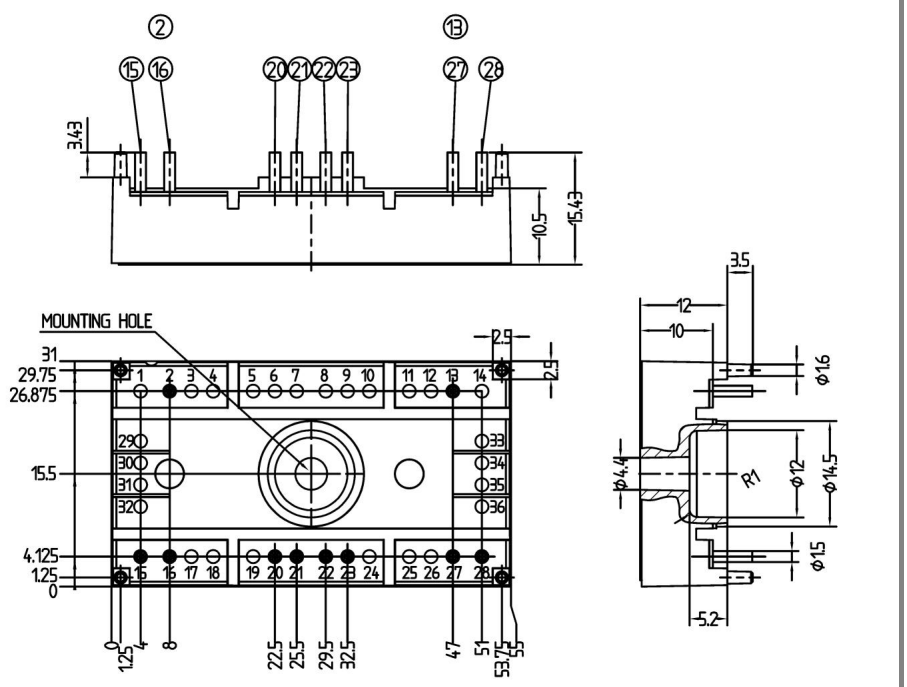
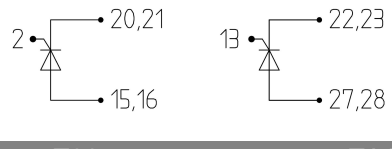
SK 80 TAA

Dimensions in mm



case T86 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins: 2mm)



case T86 TAA

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