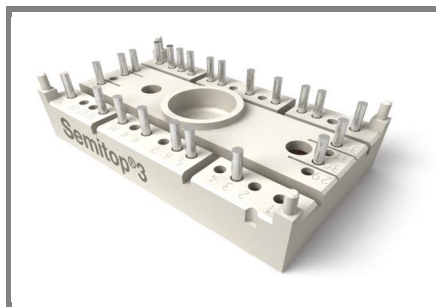


SK 80 TAA



SEMITOP®3

Thyristor module

SK 80 TAA

Target Data

Features

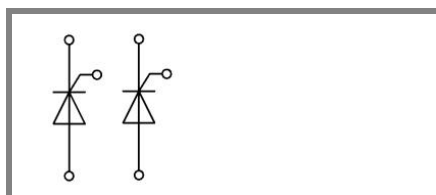
- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide (DCB)
- Glass passivated thyristor chips
- Up to 1600V reverse voltage
- High surge currents

Typical Applications

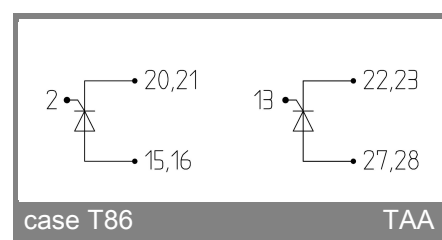
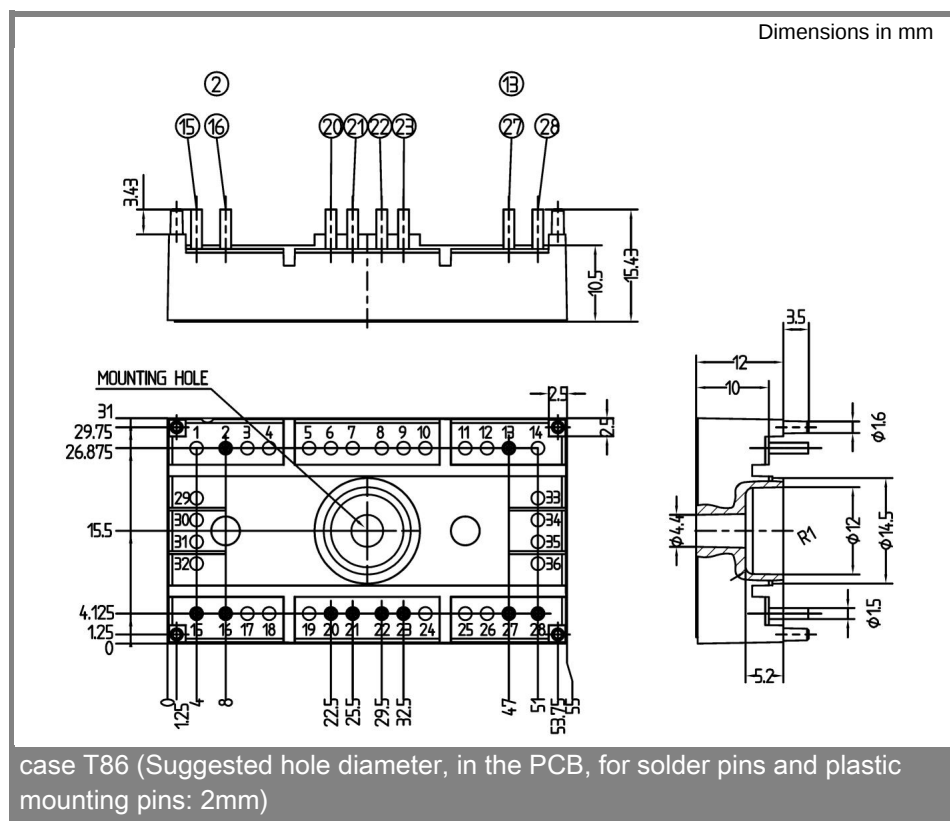
- Motor drives
- Controlled battery chargers

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 $T_{vj} = 125$ °C; 10 ms	2000 1800	A A
i^2t	$T_{vj} = 25$ °C; half sine wave, 10 ms $T_{vj} = 25$ °C; half sine wave, 10 ms	20000 16200	A²s 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}	$V_D = 0,67 \cdot V_{DRM}$	2	μs
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C	max. 1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125$ °C; $f = 50 \dots 60$ 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; $R_G = 33 \Omega$	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 sin. 180° per thyristor	0,45 0,47	K/W 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	



TAA



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