

SKUT 230



SEMIPONT® 7

Three Phase Antiparallel Thyristor Module

SKUT 230

Preliminary Data

Features

- Robust plastic case with screw terminals
- Heat transfer through aluminium oxide ceramic isolated metal base plate
- Blocking voltage up to 1800V
- High surge current
- lead free solder
- UL -recognition applied for file no. E 63 532

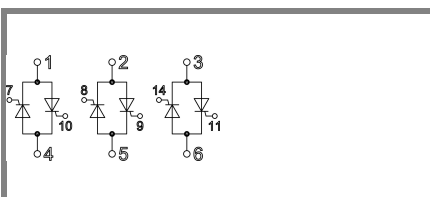
Typical Applications

- AC motor soft starter
- Temperature control (e.g. for ovens, chemical processes)
- Professional light dimming

1) available on request

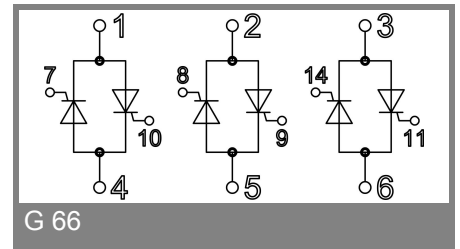
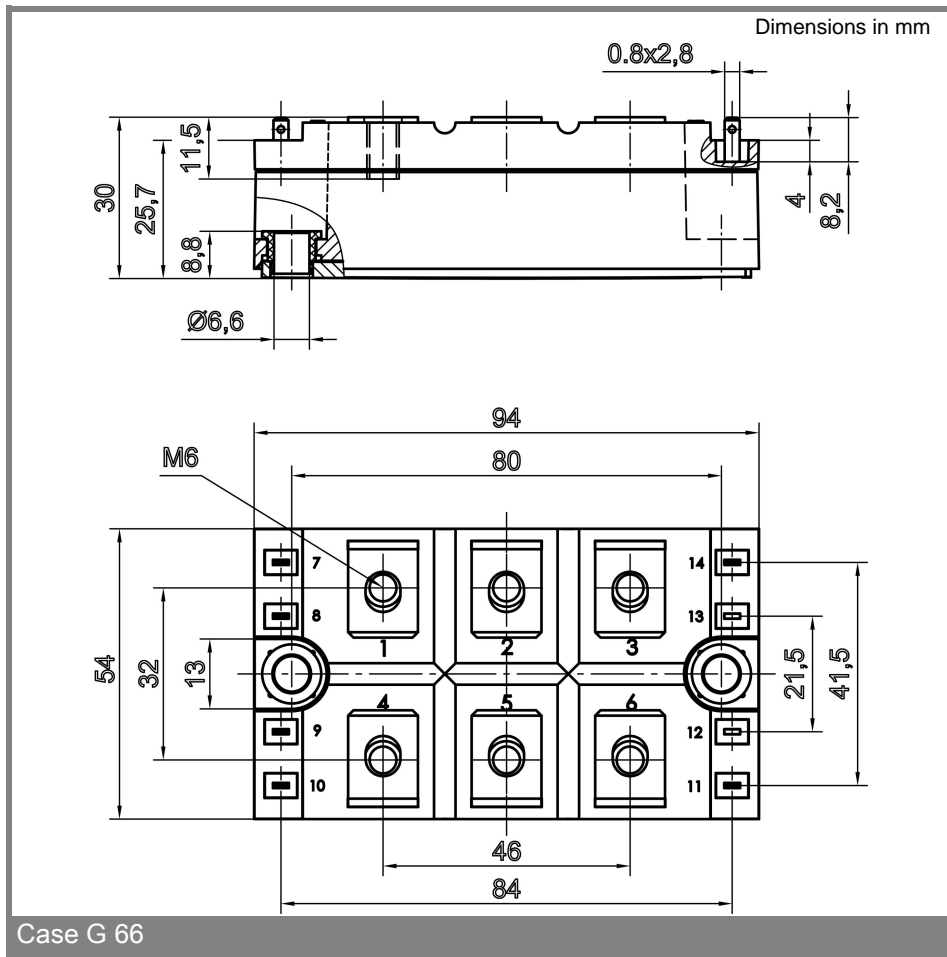
V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{RMS} = 230 \text{ A (full conduction)}$ ($T_c = 80 \text{ }^\circ\text{C}$)
900	800	SKUT 230/08
1300	1200	SKUT 230/12
1700	1600	SKUT 230/16
1900	1800	SKUT 230/18 ¹⁾

Symbol	Conditions	Values	Units
I_{RMS}	per arm ; sin. 180° ; $T_c = 80 \text{ }^\circ\text{C}$	230	A
	per arm ; sin. 180° ; $T_c = 85 \text{ }^\circ\text{C}$	215	A
	per arm ; sin. 180° ; $T_c = 100 \text{ }^\circ\text{C}$	163	A
I_{TSM}	$T_{vj} = 25 \text{ }^\circ\text{C}$; 10 ms	2200	A
	$T_{vj} = 130 \text{ }^\circ\text{C}$; 10 ms	1950	A
i^2t	$T_{vj} = 25 \text{ }^\circ\text{C}$; 8,3 ... 10 ms	24200	A ² s
	$T_{vj} = 130 \text{ }^\circ\text{C}$; 8,3 ... 10 ms	19000	A ² s
V_T	$T_{vj} = 25 \text{ }^\circ\text{C}$, $I_T = 300 \text{ A}$	max. 1,85	V
$V_{T(TO)}$	$T_{vj} = 130 \text{ }^\circ\text{C}$	0,9	V
r_T	$T_{vj} = 130 \text{ }^\circ\text{C}$	3,5	mΩ
I_{DD}, I_{RD}	$T_{vj} = 25 \text{ }^\circ\text{C}$, $V_{RD} = V_{RRM}$	max. 1	mA
	$T_{vj} = 130 \text{ }^\circ\text{C}$, $V_{RD} = V_{RRM}$	max. 20	mA
t_{gd}	$T_{vj} = 25 \text{ }^\circ\text{C}$, $I_G = 1 \text{ A}$; $di_G/dt = 1 \text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	2	μs
$(dv/dt)_{cr}$	$T_{vj} = 130 \text{ }^\circ\text{C}$	1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 130 \text{ }^\circ\text{C}$; $f = 50 \text{ Hz}$	150	A/μs
t_q	$T_{vj} = 130 \text{ }^\circ\text{C}$; typ.	100	μs
I_H	$T_{vj} = 25 \text{ }^\circ\text{C}$; typ. / max.	150 / 300	mA
I_L	$T_{vj} = 25 \text{ }^\circ\text{C}$; $R_G = 33 \text{ }^\circ\Omega$; typ. / max.	300 / 600	mA
V_{GT}	$T_{vj} = 25 \text{ }^\circ\text{C}$; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25 \text{ }^\circ\text{C}$; d.c.	min. 150	mA
V_{GD}	$T_{vj} = 130 \text{ }^\circ\text{C}$; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 130 \text{ }^\circ\text{C}$; d.c.	max. 6	mA
$R_{th(j-c)}$	per thyristor	0,27	K/W
	total	0,045	K/W
$R_{th(c-s)}$	total	0,03	K/W
	T_{vj}	- 40 ... + 130	°C
T_{stg}		- 40 ... + 130	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	5 ±15%	Nm
M_t	to terminal	5 ±15%	Nm
a		5 * 9,81	m/s ²
m	approx.	250	g
Case		G 66	



SKUT

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