

SK 55 B 12 F

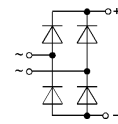
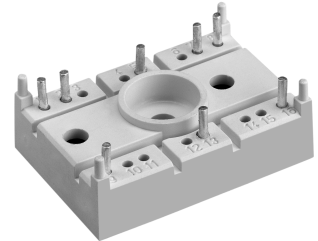
V_{RRM} V	I_D ($T_h = 80^\circ\text{C}$) 54 A
1200	SK 55 B 12 F

SEMITOP® 2

Bridge Rectifier

SK 55 B 12 F

Symbol	Conditions ¹⁾	Values	Units
I_D	$T_h = 80^\circ\text{C}$	57	A
I_{FSM}	$T_{vj} = 150^\circ\text{C}; 10\text{ ms}$	550	A
i^2t	$T_{vj} = 150^\circ\text{C}; 10\text{ ms}$	1500	A^2s
I_{RRM}	$T_{vj} = 125^\circ\text{C}$	typ. 40	A
t_{rr}	$T_{vj} = 25^\circ\text{C}$	–	μs
Q_{rr}	$T_{vj} = 25^\circ\text{C}$	typ. 3	μC
I_R	$T_{vj} = 125^\circ\text{C}$	typ. 8	μC
	$T_j = 25^\circ\text{C}$	0,2	mA
	$T_j = 150^\circ\text{C}$	4	mA
V_F	$T_{vj} = 25^\circ\text{C}; (I_F = 50\text{ A})\text{ max.}$	2,5	V
$V_{T(T0)}$	$T_{vj} = 125^\circ\text{C}$	1,2	V
r_T	$T_{vj} = 125^\circ\text{C}$	22	$\text{m}\Omega$
R_{thjh} ²⁾	per diode	0,9	K/W
	per module	0,23	K/W
T_{vj}		– 40 ... + 150	$^\circ\text{C}$
T_{stg}		– 40 ... + 125	$^\circ\text{C}$
T_{solder}	terminals, 10 s	260	$^\circ\text{C}$
V_{isol}	a.c. 50 Hz; r.m.s. 1 s/1 min	3000 / 2500	V
M_1	mounting torque	2,0	Nm
w		19	g
Case		T 6	



B

Features

- Compact Design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Fast and soft recovery CAL (controlled axial lifetime) diode
- UL recognized, file no. E 63 532

Typical Applications

- General power switching applications
- UPS
- Switched mode power supplies

¹⁾ $T_h = 25^\circ\text{C}$ unless otherwise specified

²⁾ Thermal resistance junction to heatsink

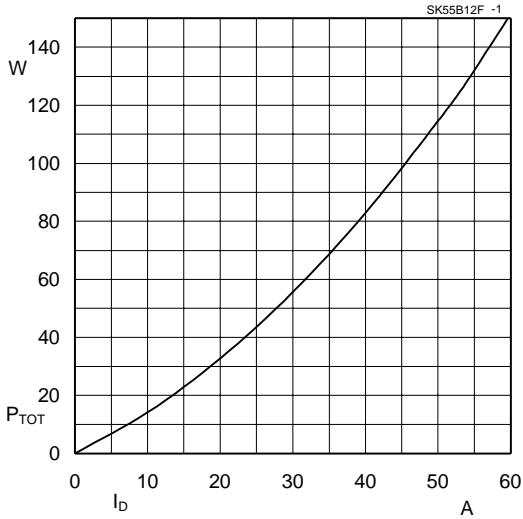


Fig. 1 Power dissipation vs. output current

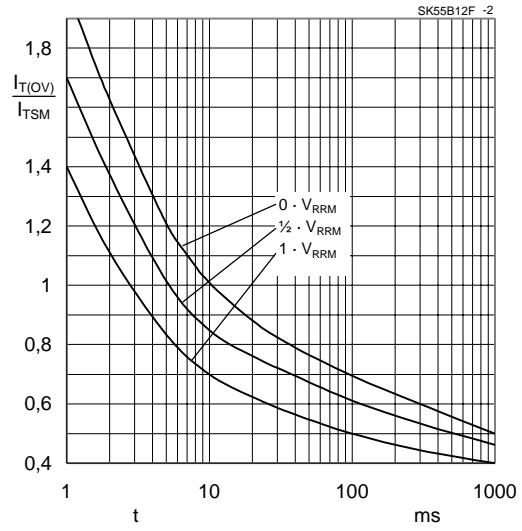


Fig. 2 Surge overload current vs. time

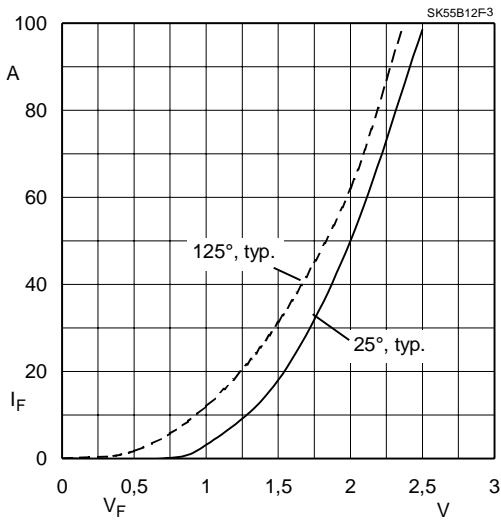


Fig. 3 Forward characteristic of single diode

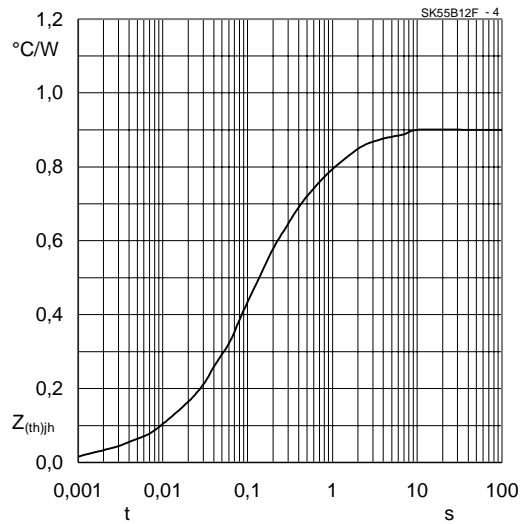


Fig. 4 Thermal transient impedance vs. time

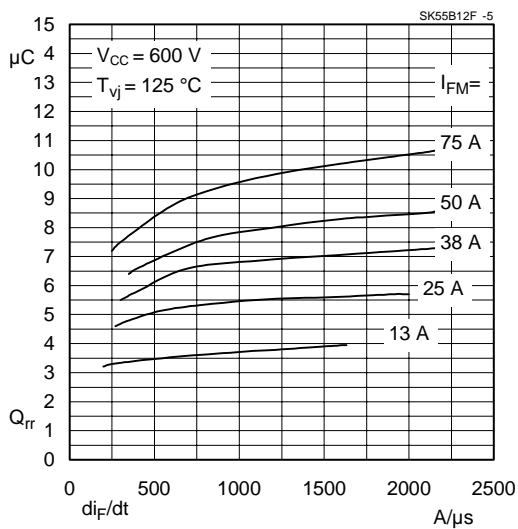
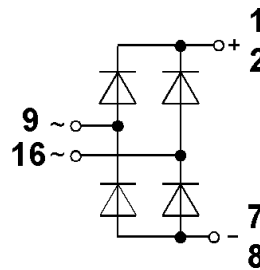
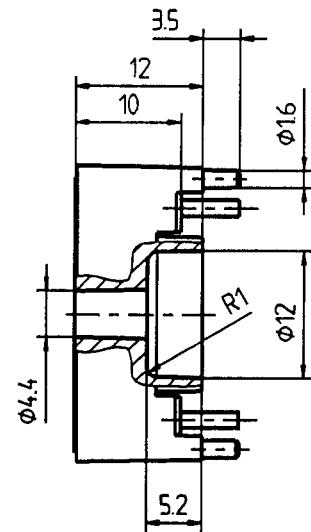
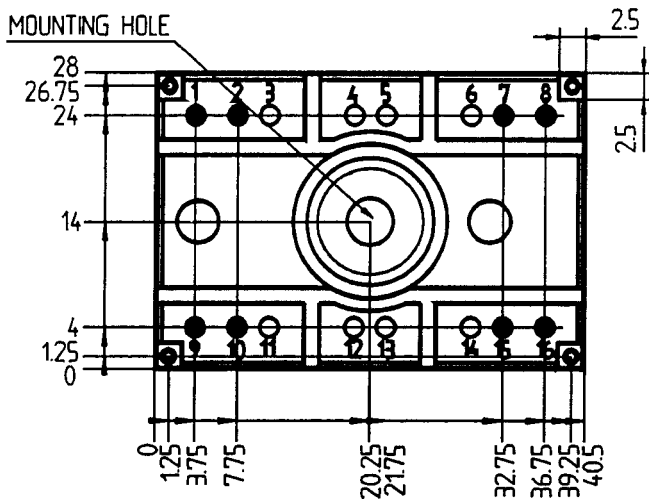
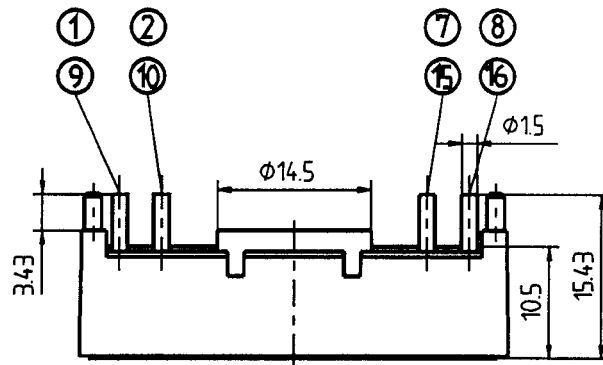


Fig. 5 Typ. reverse recovery charge $Q_{rr} = f(di_F/dt)$

SEMITOP® 2
SK 55 B 12 F

Case T 6



Dimensions in mm

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