

SK 35 D 12 F

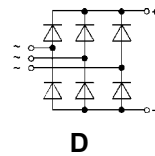
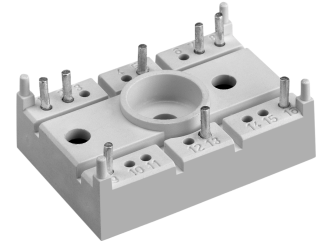
V_{RRM} V	I_D ($T_h = 80\text{ °C}$) 33 A
1200	SK 35 D 12 F

SEMITOP® 2

Bridge Rectifier

SK 35 D 12 F

Symbol	Conditions ¹⁾	SK 35 D	Units	
I_D	$T_h = 80\text{ °C}$	33	A	
I_{FSM}	$T_{vj} = 150\text{ °C}; 10\text{ ms}$	180	A	
i^2t	$T_{vj} = 150\text{ °C}; 10\text{ ms}$	162	A ² s	
I_{RRM}	$I_F = 15\text{ A}, V_R = 600\text{ V},$ $- di_F/dt = 400\text{ A}/\mu\text{s}$ $V_R = V_{RRM}$	typ. 16	A	
t_{rr}		$T_{vj} = 25\text{ °C}$	–	μs
Q_{rr}		$T_{vj} = 25\text{ °C}$	typ. 1,5	μC
I_R		$T_{vj} = 125\text{ °C}$	typ. 2,7	μC
I_R	$T_j = 25\text{ °C}$	0,1	mA	
I_R	$T_j = 150\text{ °C}$	2	mA	
V_F	$T_{vj} = 25\text{ °C}; (I_F = 15\text{ A}); \text{max.}$	2,5	V	
$V_{T(T0)}$	$T_{vj} = 125\text{ °C}$	1,2	V	
r_T		75	m Ω	
R_{thjh} ²⁾	per diode	1,7	K/W	
	per module	0,28	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		21	g	
Case		T 7		



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⁾ $T_h = 25\text{ °C}$ unless otherwise specified

²⁾ Thermal resistance junction to heatsink

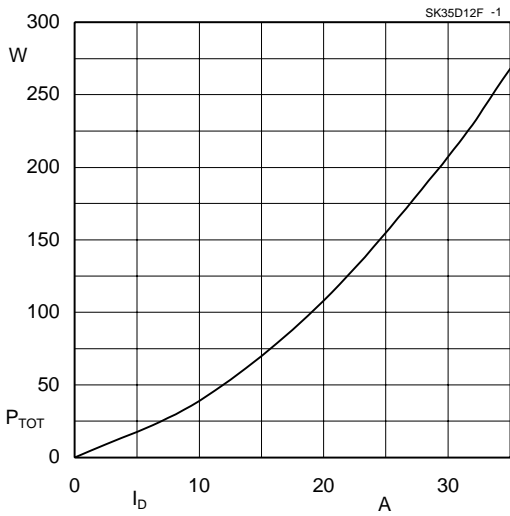


Fig. 1 Power dissipation vs. output current

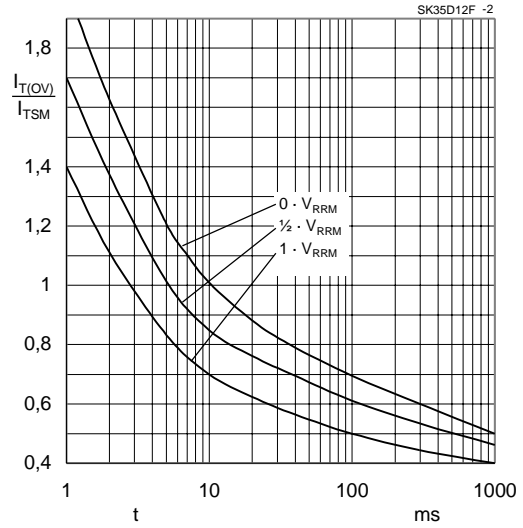


Fig. 2 Surge overload current vs. time

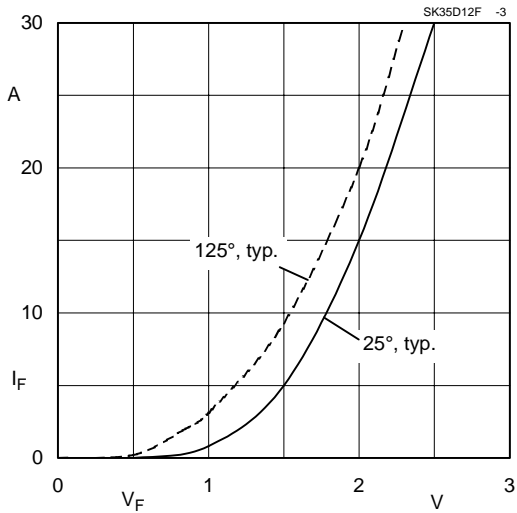


Fig. 3 Forward characteristic of single diode

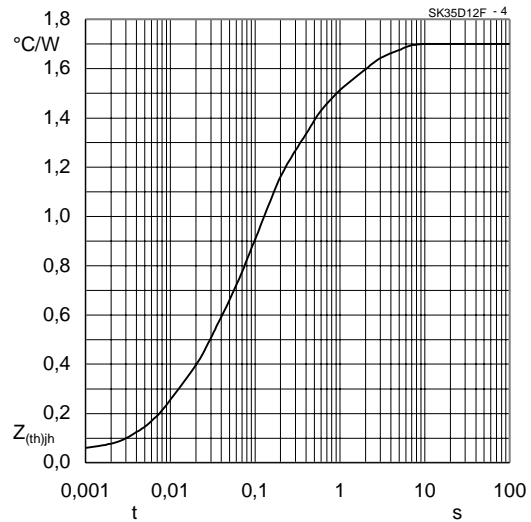


Fig. 4 Thermal transient impedance vs. time

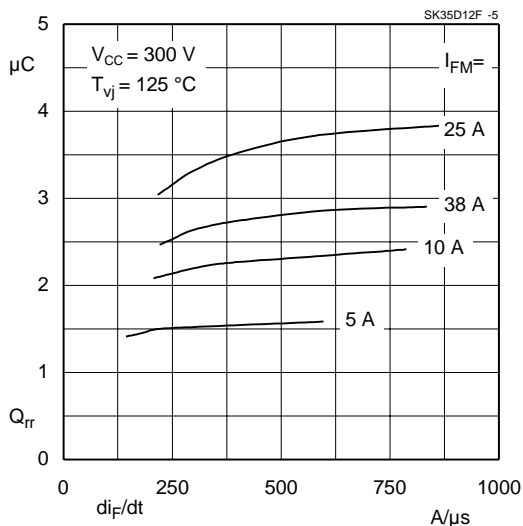
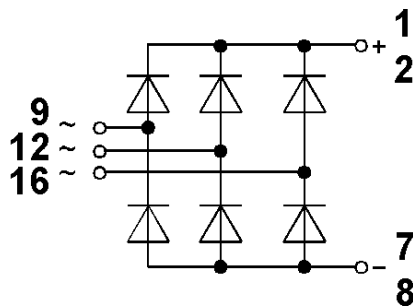
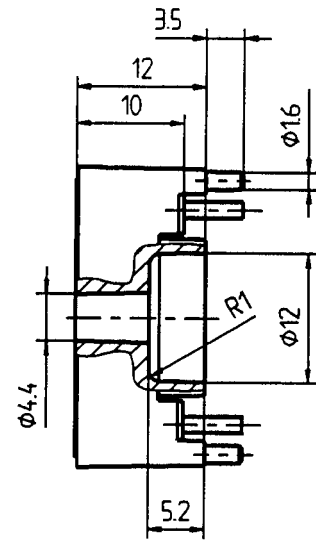
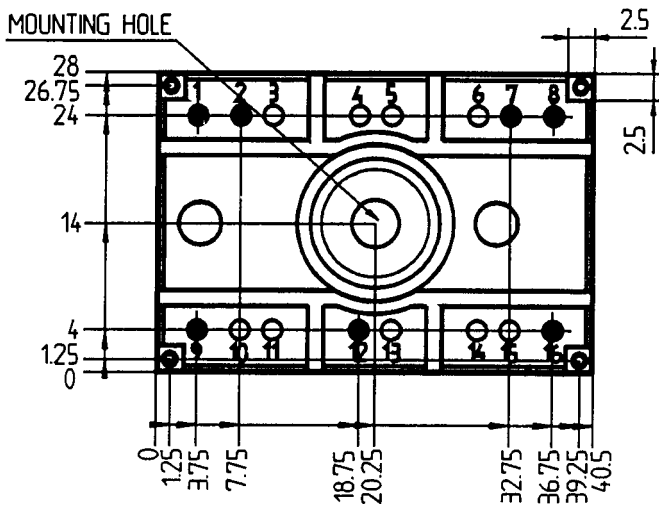
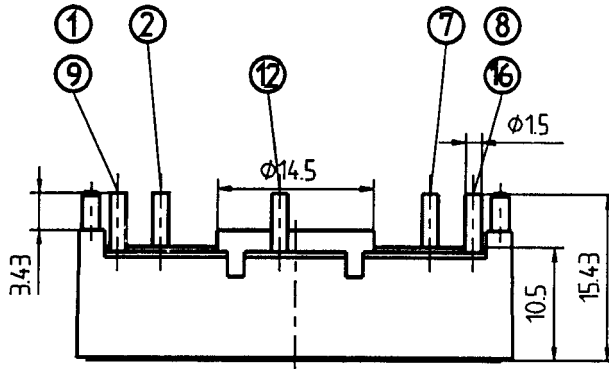


Fig. 5 Typ. reverse recovery charge $Q_{rr} = f(di_F/dt)$

SEMITOP® 2
SK 35 D 12 F

Case T 7



Dimensions in mm

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