

T.25.23

V _{DRM} V _{RSM} V _{RRM}	I _D (T _{case} = ...; full conduction)			I _{RMS} (T _{case} = 83 °C) 35 A
	35 A (94 °C)	35 A (82 °C)		
800 V	SKDT 35/08	SKDH 35/08	SKYT 35/08	SKUT 35/08
1200 V	SKDT 35/12	SKDH 35/12	SKYT 35/12	SKUT 35/12
1400 V	SKDT 35/14	SKDH 35/14	SKYT 35/14	SKUT 35/14

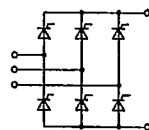
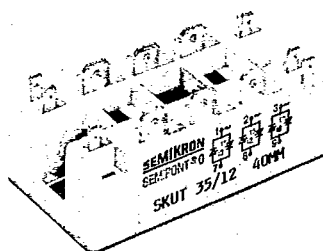
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Controllable Bridge Rectifiers

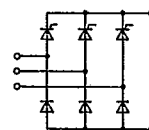
SKDT 35 SKDH 35
SKUT 35 SKYT 35

Preliminary Data

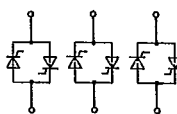
Symbol	Conditions	SKDT 35 SKDH 35	SKYT 35
I _D	T _{case} = ...; inductive load T _{amb} = 45 °C, chassis ¹⁾ P1/120	35 A (95 °C) 13,5 A 29 A	35 A (82 °C) 13 A 26 A
I _{RMS}	T _{case} = 83 °C; sin. 180 T _{amb} = 45 °C, chassis ¹⁾ P1/120	— — —	35 A 10,5 A 22 A
I _{TSM} , I _{FSM}	T _{vj} = 25 °C, 10 ms T _{vj} = 125 °C, 10 ms T _{vj} = 25 °C, 8,3...10 ms T _{vj} = 125 °C, 8,3...10 ms	320 A 280 A 510 A ² s 390 A ² s	
(di/dt) _{cr} (dv/dt) _{cr}	T _{vj} = 125 °C, 10 ms T _{vj} = 125 °C, 2/3 V _{DRM}	50 A/μs 500 V/μs	
I _H I _L	T _{vj} = 25 °C, typ./max. T _{vj} = 25 °C, typ./max.	50 mA/200 mA 100 mA/600 mA	
V _T V _{T(TO)} r _T I _D	T _{vj} = 25 °C; I _T = 75 A T _{vj} = 125 °C T _{vj} = 125 °C T _{vj} = 125 °C; V _{DRM} , V _{RRM}	2,45 V 1,1 V 20 mΩ 8 mA	
V _{GT} I _{GT} V _{GD} I _{GD}	T _{vj} = 25 °C; V _D = 6 V T _{vj} = 25 °C; V _D = 6 V T _{vj} = 125 °C; V _D = 6 V T _{vj} = 125 °C; V _D = 6 V	3 V 100 mA 0,25 V 5 mA	
R _{thjc} R _{thch} R _{thja} T _{vj} T _{stg}	per thyristor/diode total SKDT, SKDH, SKUT total SKYT total ²⁾ total ²⁾ T _{vj} T _{stg}	1,4 °C/W 0,233 °C/W 0,35 °C/W 0,1 °C/W 15 °C/W -40... + 125 °C -40... + 125 °C	
V _{isol} M ₁ w	50...60 Hz; r.m.s. case to heatsink; SI units/US units	2500 V~ 2 Nm/18 lb.in. ± 15 % 90 g	
Case	→ page B 11-54	SKDT 35: G 47 SKDH 35: G 49 SKUT 35: G 46 SKYT 35: G 48	



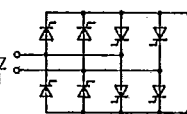
SKDT



SKDH



SKUT



SKYT

Features

- Sturdy isolated metal baseplate
- Fast-on terminals with solder tips
- Suitable for wave soldering
- High surge current rating

Typical Applications

- Full-controllable three-phase rectifiers
- Half-controllable three-phase rectifiers
- Three-phase a. c. controllers
- Single-phase four quadrant converters

¹⁾ Painted metal sheet of minimum 250 x 250 x 1 mm³: R_{thca} = 1,85 °C/W

²⁾ Freely suspended or mounted on an insulator

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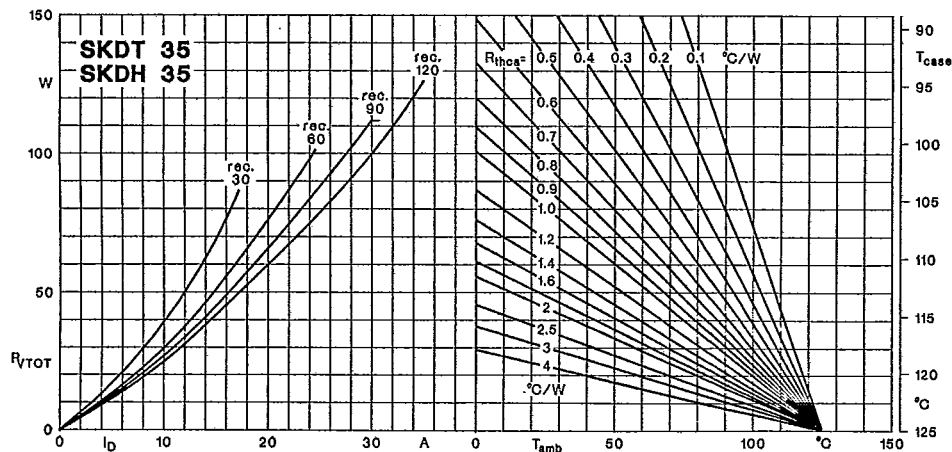


Fig. 4 a Power dissipation vs. output current and case temperature

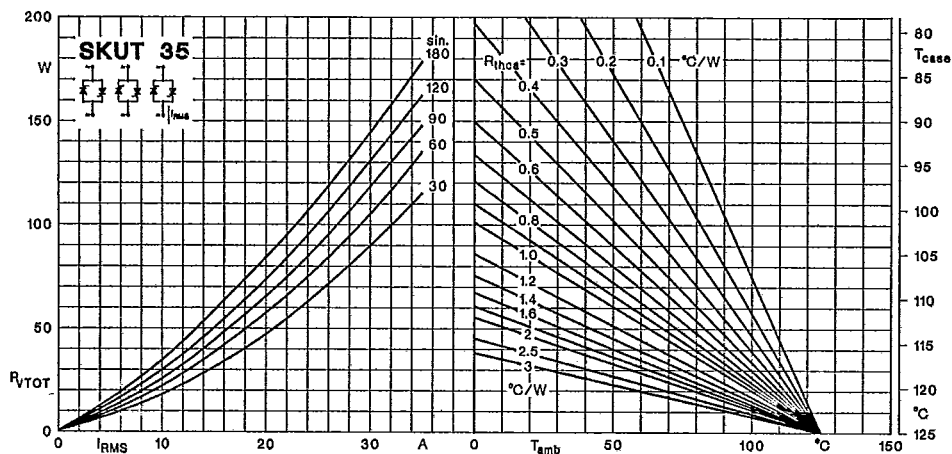


Fig. 4 b Power dissipation vs. output current and case temperature

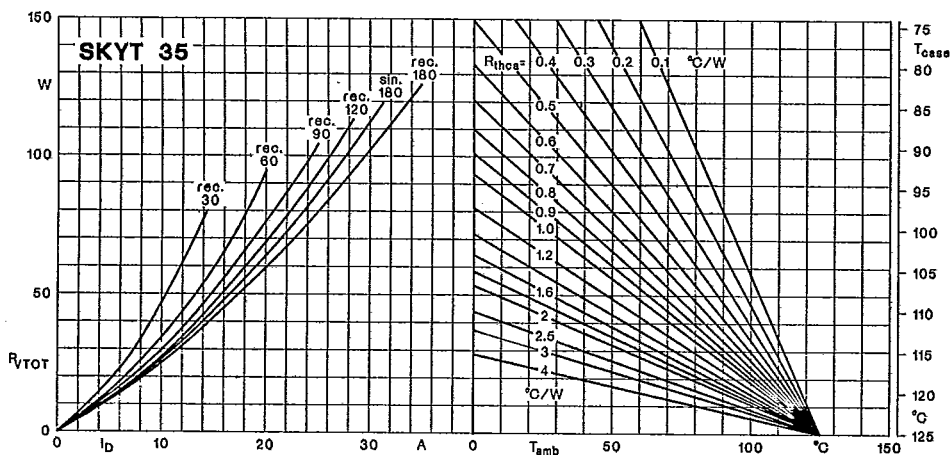


Fig. 4 c Power dissipation vs. output current and case temperature

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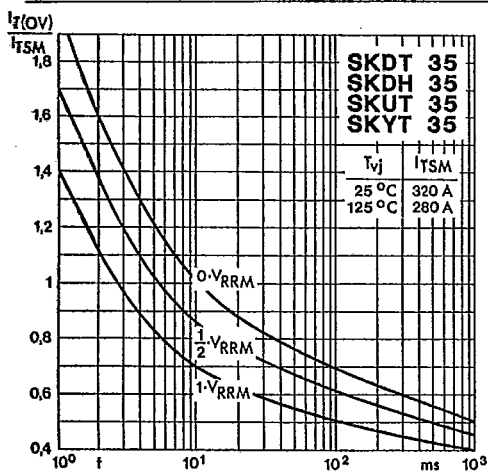


Fig. 5 Surge overload current vs. time

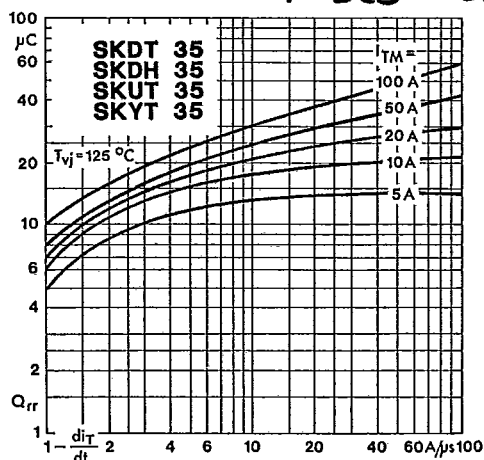


Fig. 8 Recovered charge vs. current decrease

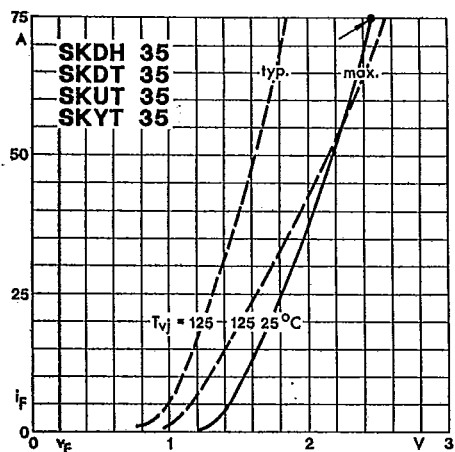


Fig. 9 Forward characteristics of a single diode

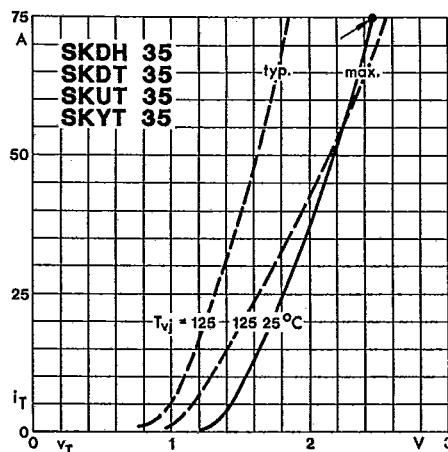


Fig. 10 On-state characteristics of a single thyristor

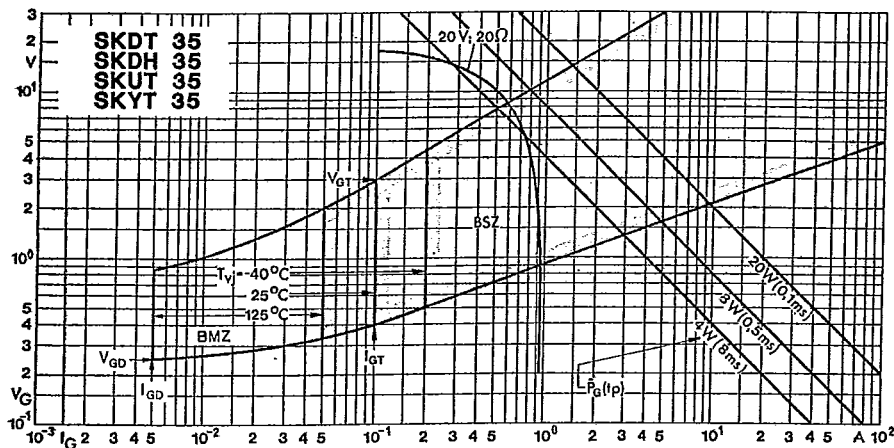


Fig. 11 Gate trigger characteristics