

FEATURES

- All difussed design
- High current capabilities
- High surge current capabilities
- High rated voltage
- Low thermal impedance
- Compact size and small weight
- Metric thread stud

APPLICATION

- High voltage Power supplies
- Motor control
- Battery chargers
- Free wheeling diode
- Resistance welding
- Arc welding



Photo non-contractual

TECHNICAL SPECIFICATION

Electrical properties

Parameter		Value & test conditions
Repetitive reverse voltage	V_{RRM}	1600 V
Average forward current	I_{AV}	450 A @ $T_c=110^\circ\text{C}$
R.M.S. Forward current	I_{RMS}	710 A
Surge forward current	I_{FSM}	7700 A at 10ms, $V_R=0,8V_{RRM}$, T_{Jmax}
I^2t value	I^2t	$300 \times 10^3 \text{ A}^2\text{s}$
Reverse current	I_R	50mA @ $T_j=25^\circ\text{C}$
		50 mA @ T_{Jmax}
Treshold voltage	V_o	0,72 V.
Slope resistance	r_o	0,51 mOhm
On-state voltage max.	V_{FM}	1,60 V at $I_{FM}=1500 \text{ A}$ @ $T_j=25^\circ\text{C}$

Thermal properties

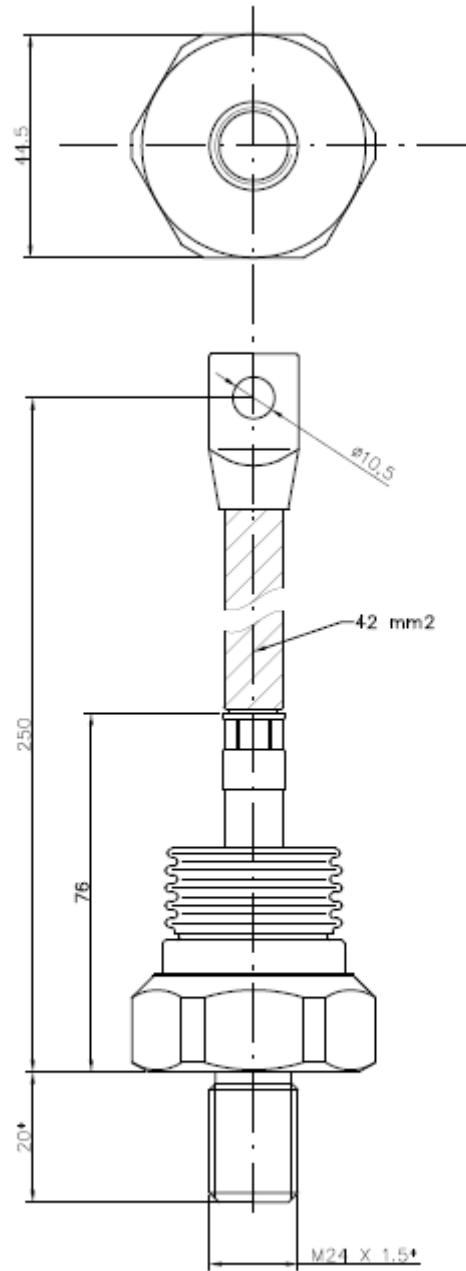
Parameter		Value & test conditions
Max. operating junction temperature	T_{Jmax}	190 °C
Thermal resistance junction-capsule	$R_{TH_{j-c}}$	DC 0,10 °C/W.
		180° sin 0,116 °C/W.
		120° sin 0,140 °C/W.
		60° sin 0,156 °C/W.
Thermal resistance capsule-heatsink	$R_{TH_{c-hs}}$	0,04 °C/W.
Storage temperature	T_{stg}	-40...+190°C

Mechanical properties

Parameter		Value & test conditions
Weight	M	520 g.
Mounting torque	m	38...41 Nm $\pm 10\%$

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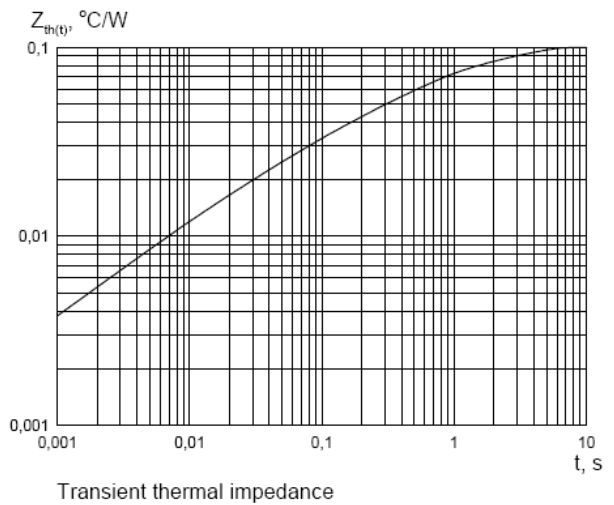
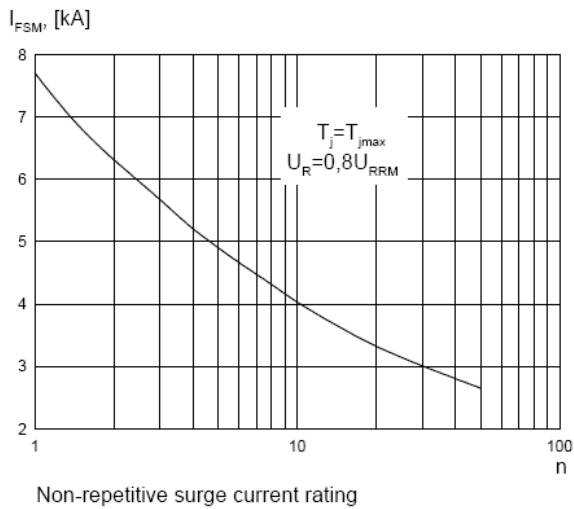
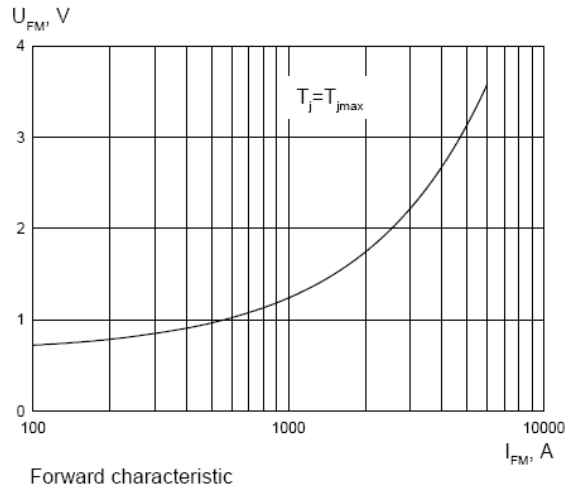
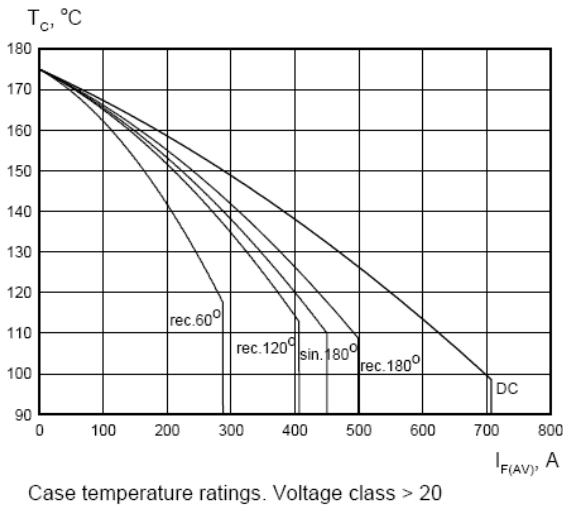
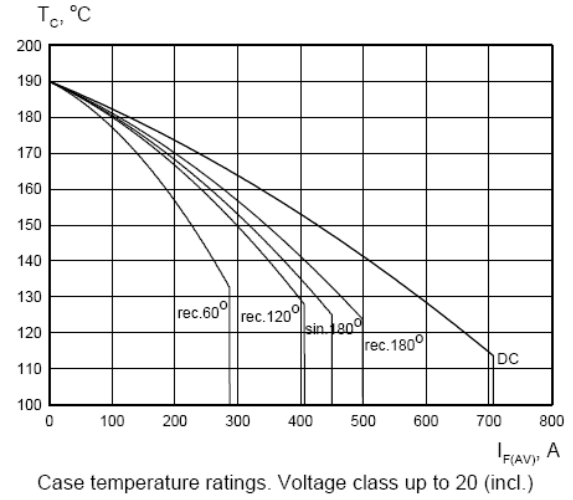
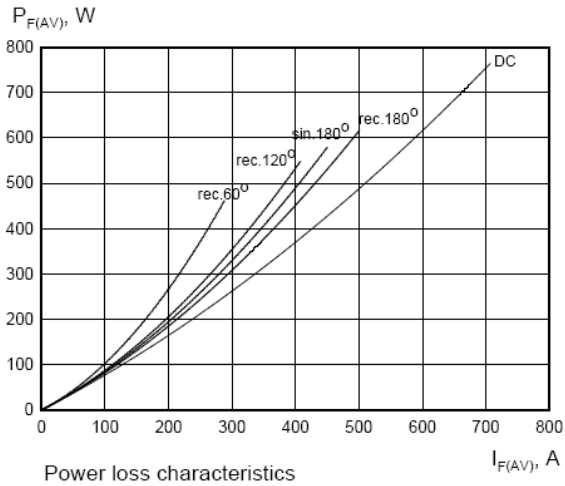
DIMENSIONS



Weight 520 g

SCDN0320N16M: STANDARD POLARITY (CATHODE TO STUD)
SCDR0320N16M: INVERSE POLARITY (ANODE TO STUD)

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Cost Effective Products

SEMICODE ELECTRONICA

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Advance Information: The product design is complete and final characterisation for volume production is well in hand.

No Annotation: The product parameters are fixed and the product is available to datasheet specification.

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