

SCDx0600N12x

Stud rectifier diode

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}	1200 V
Average forward current	I _{AV}	600 A @ Tc=115°C
R.M.S. Forward current	I _{RMS}	940 A
Surge forward current	I _{FSM}	9000 A at 10ms, V _R =0,8V _{RRM} , Tj _{max}
l ² t value	l ² t	405x10 ³ A ² s
Reverse current	I _R	50mA @ Tj=25°C
Treshold voltage	Vo	0,63 V.
Slope resistance	ro	0,34 mOhm
On-state voltage max.	V_{FM}	1,20 V at I _{FM} =1500 A @ Tj=25°C

Thermal properties

Parameter		Value & test conditions
Max. operating junction temperature	Tj _{max}	190 °C
Thermal resistance junction-capsule	RTH _{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	RTH _{c-hs}	0,04 °C/W.
Storage temperature	T _{stg}	-40+190°C

Mechanical properties

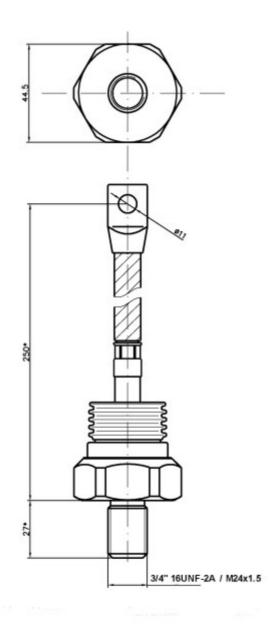
Parameter		Value & test conditions
Weight	M	520 g.
Mounting torque	m	3/4": 2832 Nm ±10%
		M24: 3841Nm ±10%

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DIMENSIONS



Weight 520 g

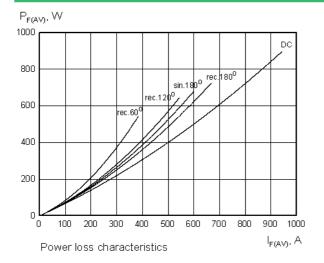
SCDN0600N12: 3/4"-16UNF 2A, STANDARD POLARITY (CATHODE TO STUD) SCDR0600N12: 3/4"-16UNF 2A, INVERSE POLARITY (ANODE TO STUD)

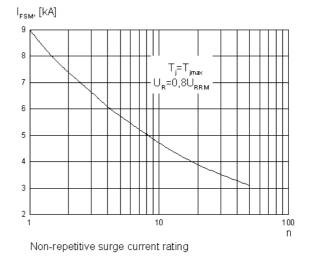
SCDN0600N12M: M24x1.5, STANDARD POLARITY (CATHODE TO STUD) SCDR0600N12M: M24x1.5, INVERSE POLARITY (ANODE TO STUD)

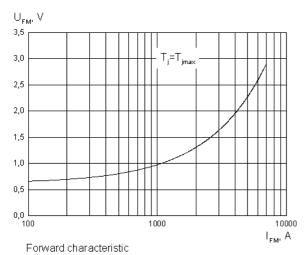
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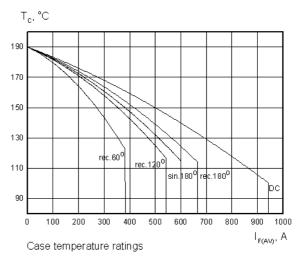


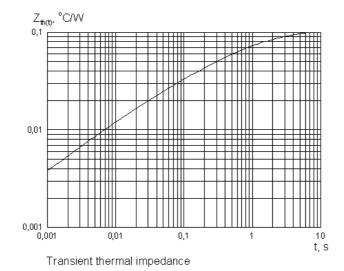
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Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.



Dx0600N i

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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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