

## SCDM0090N16

Single diode power module

#### FEATURES

-Industry standard package -High V<sub>RRM</sub> voltage. -High surge current -Power supplies -Battery chargers -Free wheeling diode

**APPLICATION** 



Photo non-contractual

#### **TECHNICAL SPECIFICATION**

#### **Electrical properties**

Parameter		Value & test conditions
Repetitive reverse voltage	V <sub>RRM</sub>	1600 V
Average forward current	I <sub>AV</sub>	90 A @ Tc=85°C
R.M.S. Forward current	I <sub>RMS</sub>	140 A
Surge forward current	I <sub>FSM</sub>	1950 A at 8,3ms, Tj=25°C
l <sup>2</sup> t value	l <sup>2</sup> t	15800 A <sup>2</sup> s @ 8,3ms Tj=25°C
Reverse current	I <sub>R</sub>	50 μA @ Tj=25°C
Treshold voltage	Vo	0,7 V.
Slope resistance	ro	2,62 mOhm
On-state voltage max.	V <sub>FM</sub>	1,4 V at I <sub>FM</sub> =270 A @ Tj=25°C

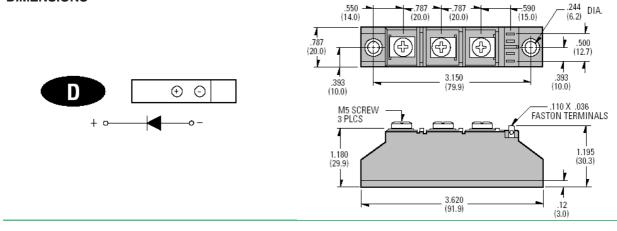
#### Thermal properties

Parameter		Value & test conditions
Max. operating junction temperature	Tj <sub>max</sub>	125 °C
Thermal resistance junction-capsule	RTH <sub>j-c</sub>	DC 0,33 °C/W.
		180° sin 0,34 °C/W.
		120° sin 0,36 °C/W.
		60° sin 0,38 °C/W.
Thermal resistance capsule-heatsink	RTHj-hs	0,14 °C/W.

#### Mechanical properties

Parameter		Value & test conditions
Weight	М	135 g.
Mounting torque	m	Terminal screw 3,4 Nm ± 10%
		Mounting screw 2,3 Nm ±10%

#### DIMENSIONS



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