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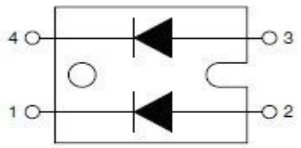
MDF180.12

INSULATED FAST RECOVERY DIODE MODULE

Output Current **180A**

Blocking Voltage **1200V**



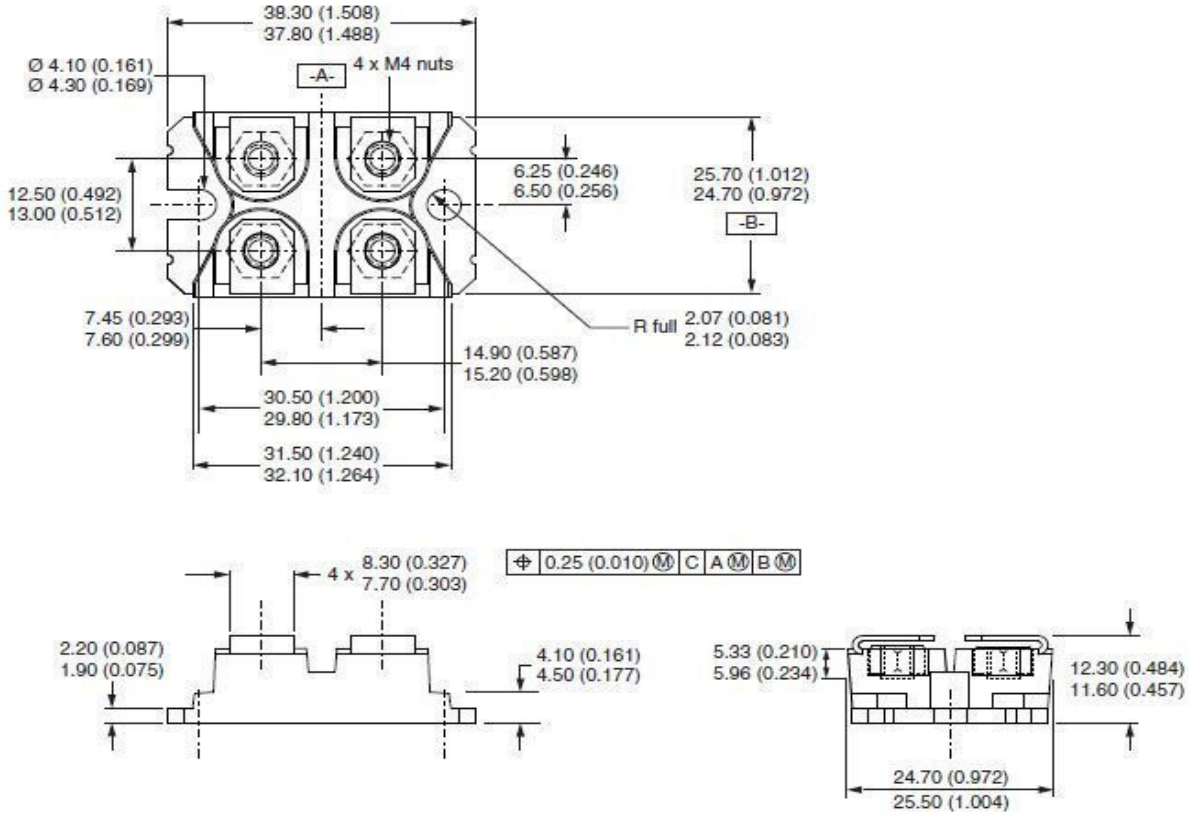
Features

Ultrafast recovery time
Low forward voltage
High surge current capability
Low leakage current
Pb-free finished; **RoHS compliant**

Applications

Switch mode power supplies (SMPS) rectifiers
Uninterruptible power supplies (UPS)
Inductive heating and melting
Ultrasonic cleaners and welders
Power factor correction (PFC) circuits
Inversion welder
Converter and chopper

Characteristics		Conditions		Value
V_{RRM}	Max repetitive peak reverse voltage	Tj = 25 °C		1200 V
$I_{F(AV)}$	Average forward current	Tc = 70 °C		180 A
I_r	Reverse current, drain current	Tj = 25 °C		10 μa
		Tj = 150 °C		8 mA
V_F	Forward drop voltage	Tj= 25 °C		1,40 V
		Tj = 150 °C		1,25 V
I_{FSM}	Surge forward current	Half sine wave, 10 ms		900 A
t_{rr}	Reverse recovery time, typ	1A VR=30V df/dt 200A/s	Tc = 25 °C	220 ns
			Tc = 100 °C	300 ns
Q_r	Reverse recovery charge	Tc = 25 °C		1250 ns
		Tc = 150 °C		2970 ns
I_{rm}	Max reverse recovery current	Tc = 25 °C		10 A
		Tc = 100 °C		22 A
$R_{th(j-c)}$	Thermal resistance (junction to case)	Mounting surface flat, smooth and greased		0,650 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased		0,100 °C/W
T_{jmax}	Operating junction temperature			-40 / 175 °C
Top	Operating temperature			-40 / 175 °C
T_{stg}	Max storage temperature			-40 / 175 °C
V_{INS}	RMS Insulating voltage	50 / 60 Hz t = 60 s (i < 1 mA)		2500 V
		50 / 60 Hz t = 1 s (i < 1 mA)		3000 V
M_D	Mounting torque	Max		1,5 Nm
M_T	Terminal torque	Max		1,5 Nm



S.CO.M.E.S. srl Via Enrico Mattei,6/8 26823 Castiglione d'Adda(LO)-IT
Phone:+39 0377 901243 Fax:+39 0377 900206