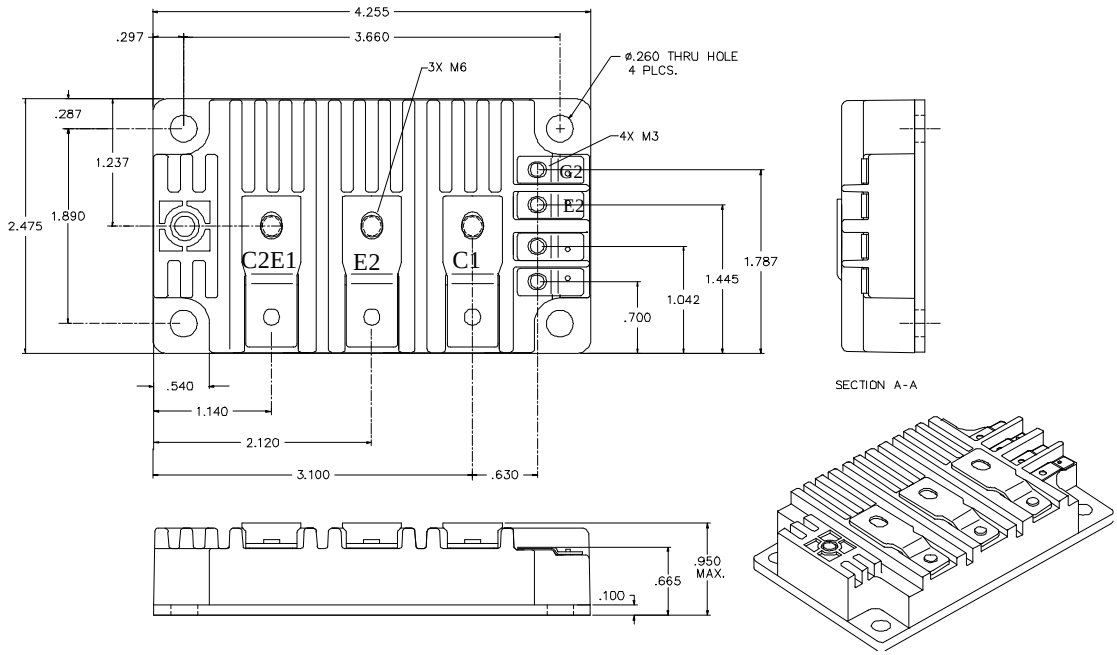
Omnirel 205 Crawford St. Leominster, MA 01453 (978)534-5776 Fax(978)537-4246, www.omnirel.com

ELECTRICAL CHARACTERISTICS: OM150L120CMC (Tc= 25°C unless otherwise specified)

Characteristic		Symbol	Min.	Typ.	Max	Unit
OFF CHARACTERISTICS						
Collector Emitter Breakdown Voltage, V_{CE}=0V		V_{CES}	1200			V
Zero Gate Voltage Drain Current, V_{GE}=0, V_{CE} =1200V		I_{CES}		2		μA
Gate Emitter Leakage Current, V_{GE}=+/-15V, V_{CE}=0V		I_{GES}		100		μA
ON CHARACTERISTICS						
Gate Threshold Voltage, V_{CE}=V_{GE}, I_C=6mA		$V_{GE(TH)}$	4.5		6.5	V
Collector Emitter Saturation Voltage, V_{GE}=15V, IC=150A		$V_{CE(SAT)}$			2.6	V
DYNAMIC CHARACTERISTICS						
Fwd. Transconductance	V_{CE}=5V, I_C=150A	gfs	17			S
Input Capacitance	V_{GE}=0	Cies			14	nF
Output Capacitance	V_{CE}=25V	Coes			1.75	nF
Rev. Transfer Capacitance	f=1.0MHz	Cres			1.2	nF
SWITCHING INDUCTIVE LOAD CHARACTERISTICS						
Turn-On Delay Time	V_{CC}= 600V, I_C=150A	t(on)			400	nS
Rise Time		tr		300		nS
Turn-on Losses		Eon				mJ
	V_{GE}=+15/-10V, R_G=5.1Ω					
Turn-off Delay Time	L=100μH	td(off)			800	nS
Fall Time		tf		200		nS
Turn-off Losses		Eoff				mJ
DIODE CHARACTERISTICS						
Maximum Forward Voltage	I_F=150A, Tj=25°C	V_F			2.8	V
	Tj=125°C				2.3	
Reverse Recovery Characteristics	V_R=600V, Tj=25°C	Qrr			16	μC
	I_F=150A, Tj=125°C				33	
	dI/dt=-1500A/μS Tj=25°C	Irr				A
	Tj=125°C					
	Tj=25°C	trr			200	nS
	Tj=125°C				400	
THERMAL AND MECHANICAL CHARACTERISTICS						
Thermal Resistance, Junction to Case (Per IGBT)		R_{thJC}			0.11	°C/W
Thermal Resistance, Junction to Case (Per Diode)		R_{thJC}			0.20	°C/W
Maximum Junction Temperature		T_{jMAX}			150	°C
Isolation Voltage		Vis_{RMS}			2500	V
Screw Torque	Mounting	-		15	20	in-lb
Screw Torque (M6)	Terminals			10	15	in-lb
Screw Torque (M3)	Terminals	-		6	8	in-lb
Module Weight		-		320		Grams

OM150L120CMC

MECHANICAL OUTLINE



EQUIVALENT CIRCUIT