

**ELECTRICAL CHARACTERISTICS: OM400F120CMS (Tc= 25°C unless otherwise specified)**

Characteristic	Symbol	Min.	Typ.	Max	Unit
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OFF CHARACTERISTICS

Collector Emitter Breakdown Voltage, VCE=0V	VCES	1200			V
Zero Gate Voltage Drain Current, VGE=0, VCE =1200V	ICES		25		μA
Gate Emitter Leakage Current, VGE=+/-15V, VCE=0V	IGES			2	μA

ON CHARACTERISTICS

Gate Threshold Voltage, VCE=VGE, IC=6mA	VGE(TH)	4.5		6.5	V
Collector Emitter Saturation Voltage, VGE=15V, IC=400A	VCE(SAT)		2.5	3.0	V

DYNAMIC CHARACTERISTICS

Fwd. Transconductance	VCE=5V, IC=400A	gfs		70	S
Input Capacitance	VGE=0	Cies		35	nF
Output Capacitance	VCE=25V	Coes		12	nF
Rev. Transfer Capacitance	f=1.0MHz	Cres		6	nF

SWITCHING INDUCTIVE LOAD CHARACTERISTICS

Turn-On Delay Time	Vcc= 600V, IC=400A VGE=+15/-10V, RG=4.7Ω L=100μH, Tj=125°C	t(on)		200	nS
Rise Time		tr		220	nS
Turn-on Losses		Eon			mJ
Turn-off Delay Time		td(off)		720	nS
Fall Time		tf		180	nS
Turn-off Losses		Eoff			mJ

DIODE CHARACTERISTICS

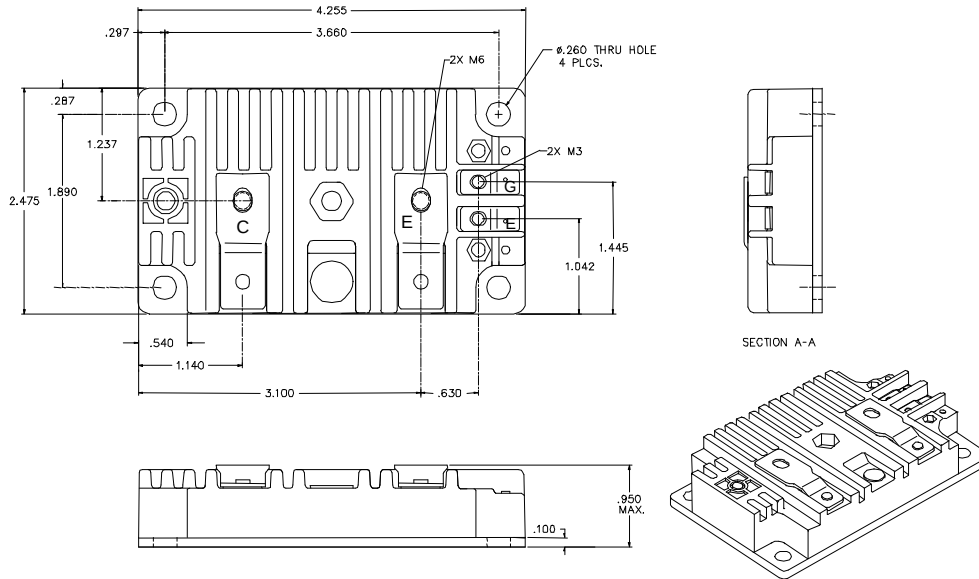
Maximum Forward Voltage	IF=400A, Tj=25°C Tj=125°C	VF		2.0	2.8	V
Reverse Recovery Characteristics	VR=600V, Tj=25°C IF=400A, Tj=125°C dI/dt=-1500A/μS Tj=25°C Tj=125°C Tj=25°C Tj=125°C	Qrr		15		μC
				28		
		Irr		60		A
				90		
		trr		180		nS
				220		

THERMAL AND MECHANICAL CHARACTERISTICS

Thermal Resistance, Junction to Case (Per IGBT)	RthJC			0.035	°C/W
Thermal Resistance, Junction to Case (Per Diode)	RthJC			0.11	°C/W
Maximum Junction Temperature	TjMAX			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	-		350		Grams

OM400F120CMS

MECHANICAL OUTLINE



EQUIVALENT CIRCUIT

