



ELECTRICAL CHARACTERISTICS: OM200F120CMA (Tc= 25°C unless otherwise specified)

Characteristic	Symbol	Min.	Typ.	Max	Unit
OFF CHARACTERISTICS					
Collector Emitter Breakdown Voltage, VCE=0V	V _{CES}	1200			V
Zero Gate Voltage Drain Current, V _{GE} =0, V _{CE} =1200V	I _{CES}		10		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	5.5	6.5	V
Collector Emitter Saturation Voltage, V _{GE} =15V, I _C =200A	V _{CE(SAT)}		2.5	3.0	V

DYNAMIC CHARACTERISTICS

Fwd. Transconductance	V _{CE} =5V, I _C =200A	g _{fs}	50	69		S
Input Capacitance	V _{GE} =0	C _{ies}		17		nF
Output Capacitance	V _{CE} =25V	C _{oes}		5		nF
Rev. Transfer Capacitance	f=1.0MHz	C _{res}		2		nF

SWITCHING INDUCTIVE LOAD CHARACTERISTICS

Turn-On Delay Time	V _{CC} = 600V, I _C =200A V _{GE} =+15/-10V, R _G =5.1Ω L=100μH	t(on)		175	400	nS
Rise Time		t _r		140		nS
Turn-on Losses		E _{on}		21		mJ
Turn-off Delay Time		t _{d(off)}		720	850	nS
Fall Time		t _f		120		nS
Turn-off Losses		E _{off}		14		mJ

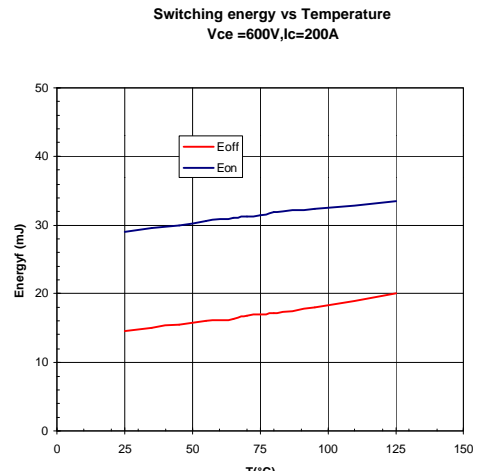
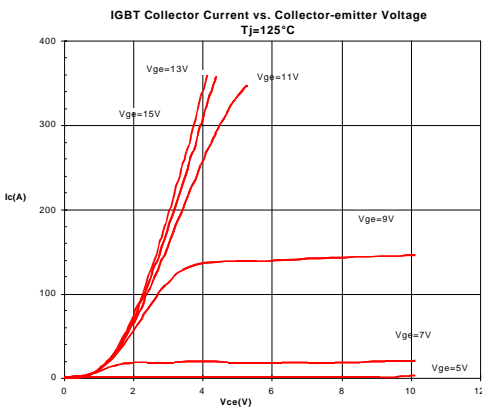
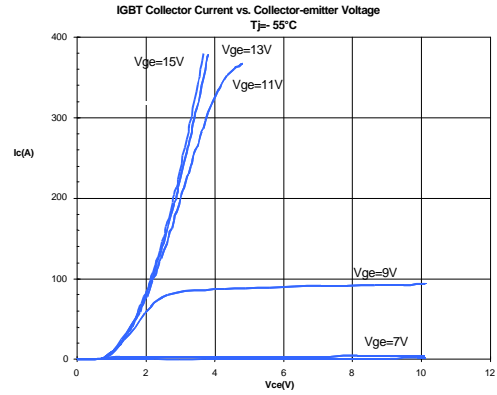
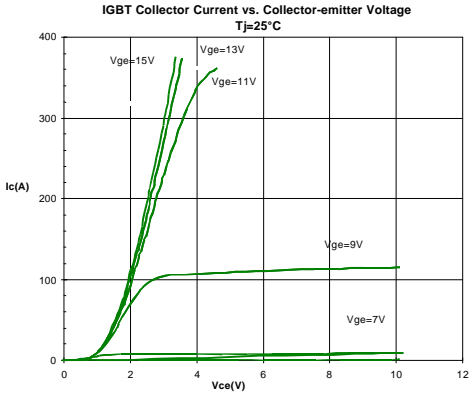
DIODE CHARACTERISTICS

Maximum Forward Voltage	I _F =200A, T _j =25°C T _j =125°C	V _F		2.0	2.8	V
Reverse Recovery Characteristics	V _R =600V, T _j =25°C I _F =200A, T _j =125°C dI/dt=-1500A/μS T _j =25°C T _j =125°C T _j =25°C T _j =125°C	Q _{rr}		10		μC
		I _{rr}		15		A
				75		
		t _{rr}		95		
				100		nS
				150		

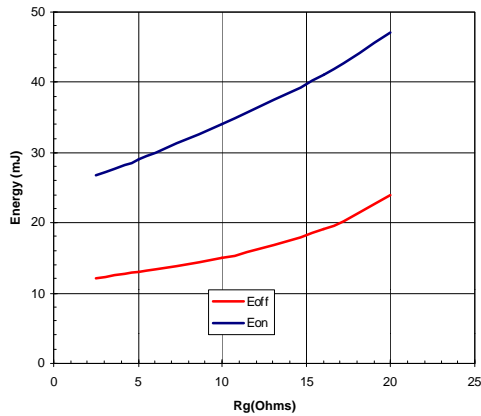
THERMAL AND MECHANICAL CHARACTERISTICS

Thermal Resistance, Junction to Case (Per IGBT)		R _{thJC}			0.07	°C/W
Thermal Resistance, Junction to Case (Per Diode)		R _{thJC}			0.12	°C/W
Maximum Junction Temperature		T _{JMAX}			150	°C
Isolation Voltage		V _{iSRMS}			2500	V
Screw Torque	Mounting	-		15	20	in-lb
Screw Torque (M6)	Terminals	-		10	12	in-lb
Screw Torque (M3)	Terminals	-		6	8	in-lb
Module Weight		-		320		Grams

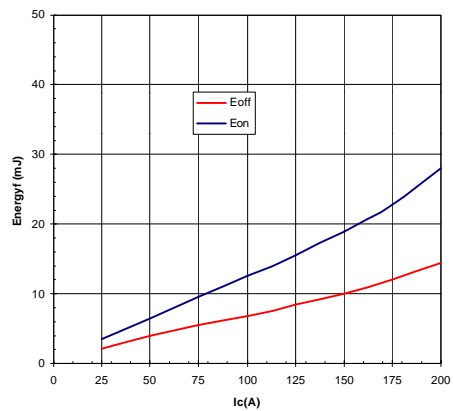
OM200F120CMA



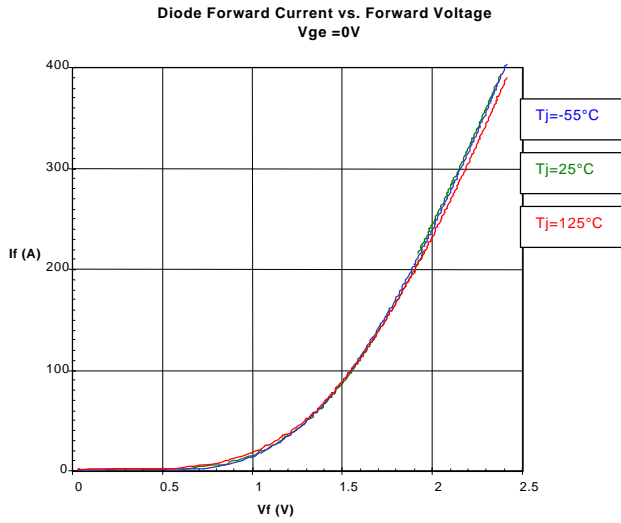
Switching energy vs Gate Resistor(R_g)
V_{ce} =600V, I_c=200A, T_j=125°C



Switching energy vs Collector current (I_c)
V_{ce} =600V, T_j=25°C

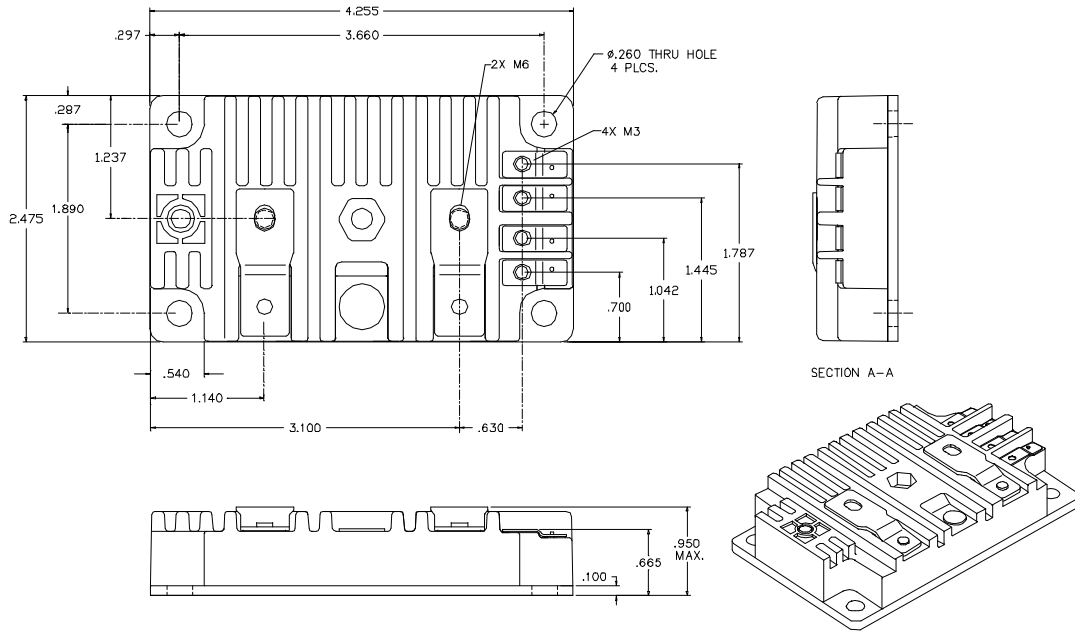


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MECHANICAL OUTLINE



EQUIVALENT CIRCUIT

