



ELECTRICAL CHARACTERISTICS: OM300L60CMS (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	600			V
Zero Gate Voltage Drain Current, VGE=0, VCE =600V	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=300A	VCE(SAT)		2.4	2.7	V

DYNAMIC CHARACTERISTICS

Fwd. Transconductance	VCE=5V, IC=300A	gfs		42	S
Input Capacitance	VGE=0	Cies		14000	pF
Output Capacitance	VCE=25V	Coes		9500	pF
Rev. Transfer Capacitance	f=1.0MHz	Cres		1120	pF

SWITCHING INDUCTIVE LOAD CHARACTERISTICS

Turn-On Delay Time	VCC= 300V, IC=300A VGE=+15/-10V, RG=6.8Ω L=100μH, Tj=125°C	t(on)		800	1600	nS
Rise Time		tr		400	800	nS
Turn-on Losses		Eon				mJ
Turn-off Delay Time		td(off)		800	1200	nS
Fall Time		tf		350	800	nS
Turn-off Losses		Eoff				mJ

DIODE CHARACTERISTICS

Maximum Forward Voltage	IF=300A, Tj=25°C Tj=125°C	VF		1.5	2.0	V	
Reverse Recovery Characteristics	VR=300V, Tj=25°C IF=300A, Tj=125°C di/dt=-1500A/μS Tj=25°C Tj=125°C Tj=25°C Tj=125°C	Qrr		8		μC	
		Irr		50		A	
		trr		80			
				160			nS
				220			

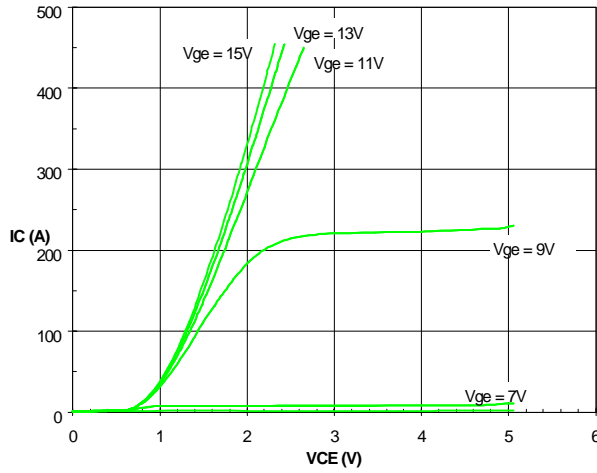
THERMAL CHARACTERISTICS

Thermal Resistance, Junction to Case (Per IGBT)	RthJC			0.11	°C/W	
Thermal Resistance, Junction to Case (Per Diode)	RthJC			0.14	°C/W	
Maximum Junction Temperature	TjMAX			150	°C	
Isolation Voltage	ViSRMS			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		-			400	Grams

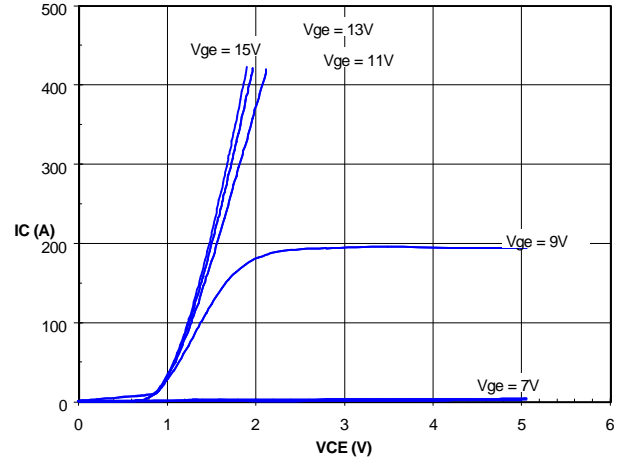


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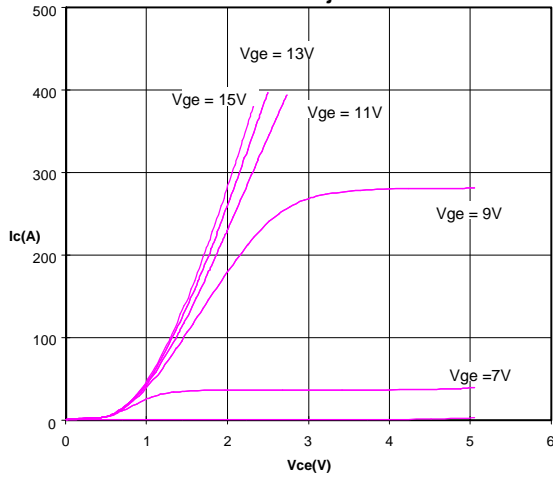
IGBT Collector current vs. Collector-emitter voltage
 $T_j=25^\circ\text{C}$



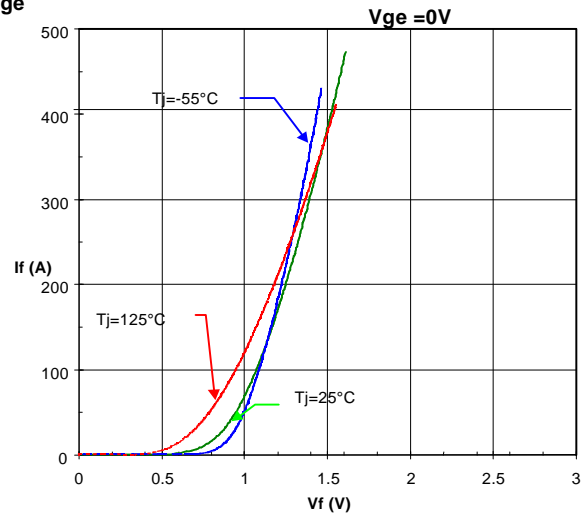
IGBT Collector Current vs. Collector-emitter Voltage
 $T_j=-55^\circ\text{C}$



IGBT Collector Current vs. Collector-emitter voltage
 $T_j=125^\circ\text{C}$

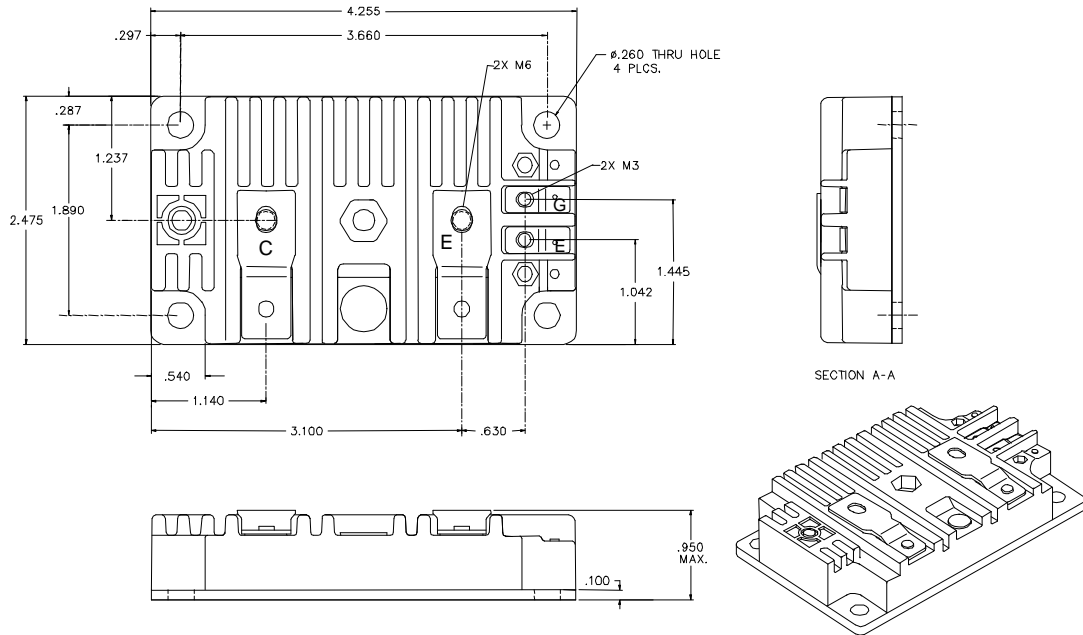


Diode Forward Current vs. Forward voltage
 $V_{ge}=0\text{V}$



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MECHANICAL OUTLINE



EQUIVALENT CIRCUIT

