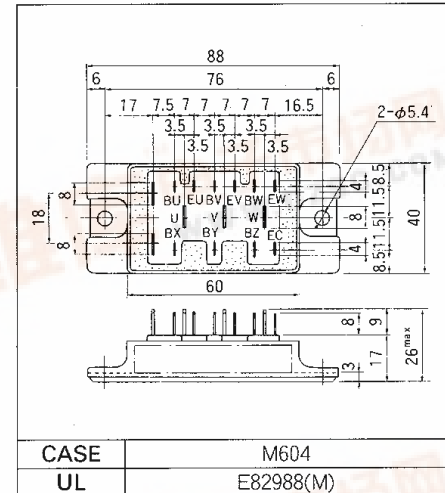


FUJI
ELECTRIC**6MBI 8L-120****6-Pack IGBT**
1200 V
8 A**IGBT MODULE (L series)****■ Features**

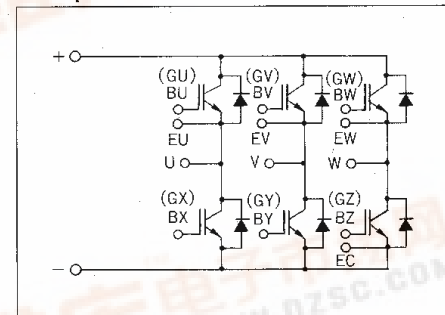
- High Speed Switching
- Low Saturation Voltage
- Voltage Drive

■ Applications

- Inverter for Motor Drive
- AC and DC Servo Drive Amplifier
- Uninterruptible Power Supply
- Industrial Machines, such as Welding Machines

■ Outline Drawings**■ Maximum Ratings and Characteristics****● Absolute Maximum Ratings**

Items	Symbols	Ratings	Units
Collector-Emitter Voltage	VCES	120	V
Gate-Emitter Voltage	VGES	±20	V
Collector Current	Continuous	IC	8
	1ms	IC pulse	16
	Continuous	-IC	8
	1ms	-IC pulse	16
Max. Power Dissipation	Pc	60	W
Operating Temperature	Tj	+150	°C
Storage Temperature	Tstg	-40 to +125	°C
Net. Weight		150	g
Isolation Voltage	AC. 1min.	Visol	2500
Screw Torque	Mounting *1	35	kg•cm
	Terminals	-	

■ Equilavelent Circuit Schematic

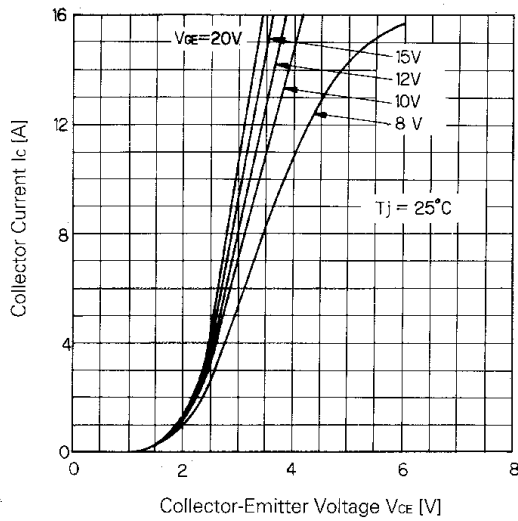
*1 Recommendable Value 25 to 35kg•cm (M5)

● Electrical Characteristics (Tc=25°C)

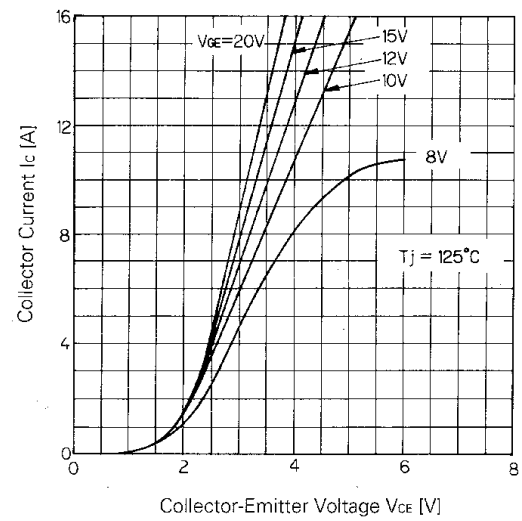
Items	Symbols	Test Conditions	Min.	Typ.	Max.	Units
Zero Gate Voltage Collector Current	ICES	VGE=0V VCE=1200V Tc=25°C			1.0	mA
		VGE=0V VCE=1200V Tc=125°C			-	mA
Gate-Emitter Leakage Current	IGES	VCE=0V VGE=±20V			100	nA
Gate-Emitter Threshold Voltage	VGE(th)	VCE=20V IC=8mA	3.0		6.0	V
Collector-Emitter Saturation Voltage	VCE(sat)	VGE=15V IC=8A		2.7	3.5	V
Input Capacitance	Cies	VGE=0V		1450		pF
Output Capacitance	Coes	VCE=10V		-		pF
Reverse Transfer Capacitance	Cres	f=1MHz		-		pF
Turn-on Time	ton	VCC=600V		0.5	0.8	μs
	tr	IC=8A		0.3	0.6	μs
Turn-off Time	toff	VGE=±15V		0.8	1.5	μs
	tf	RG=150Ω		0.3	0.5	μs
Diode Forward On-Voltage	VF	IF=8A VGE=0V			2.5	V
Reverse Recovery Time	trr	IF=8A -di/dt=50A/μs VGE=-10V		200	350	ns

● Thermal Characteristics

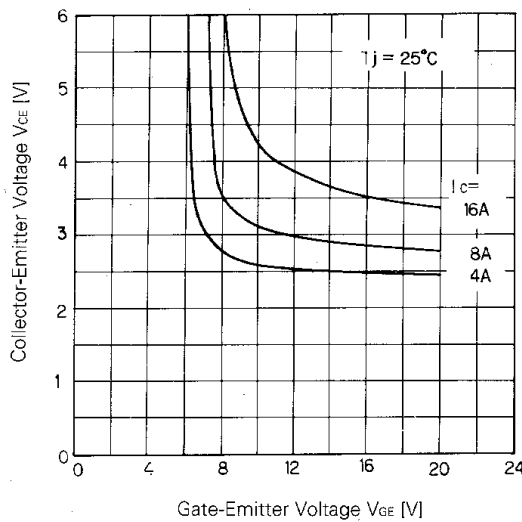
Items	Symbols	Test Conditions	Min.	Typ.	Max.	Units
Thermal Resistance	Rth(j-c)	IGBT			2.08	°C/W
	Rth(j-c)	Diode			3.30	°C/W
	Rth(c-f)	With Thermal compound		0.06		°C/W



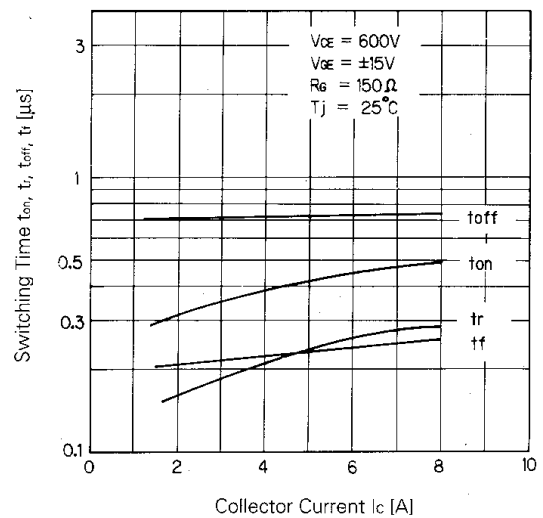
Collector Current vs. Collector-Emitter Voltage



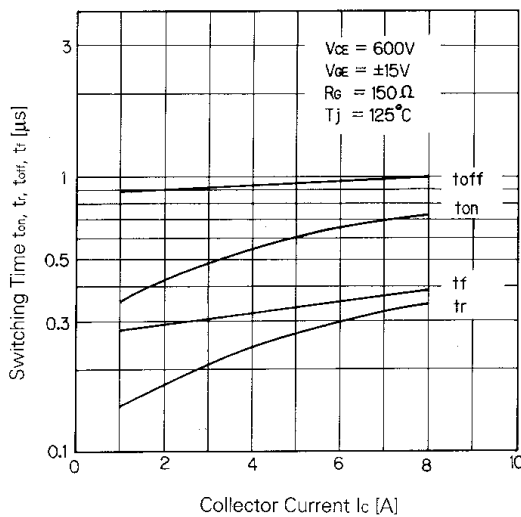
Collector Current vs. Collector-Emitter Voltage



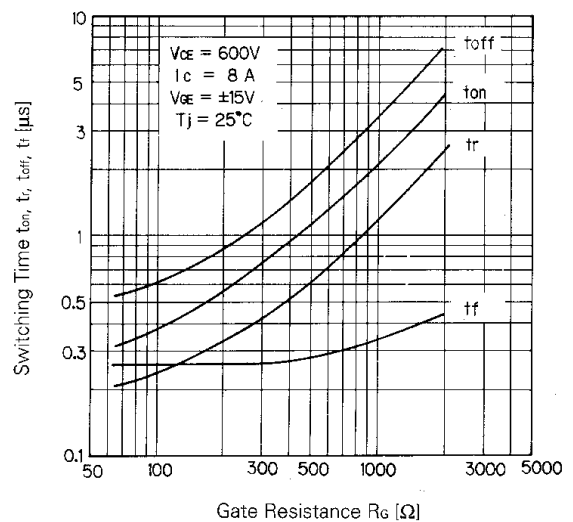
Collector-Emitter Voltage vs. Gate-Emitter Voltage



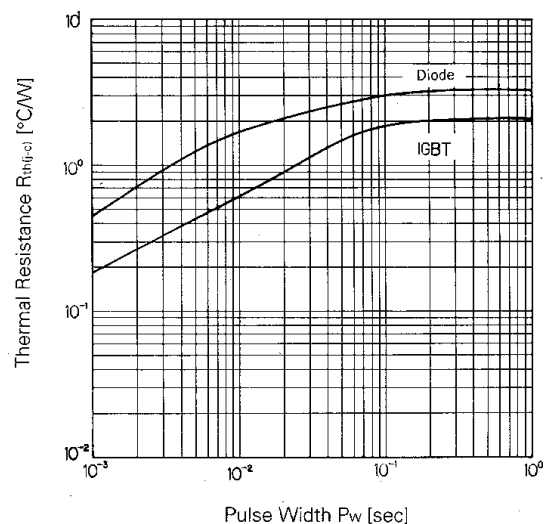
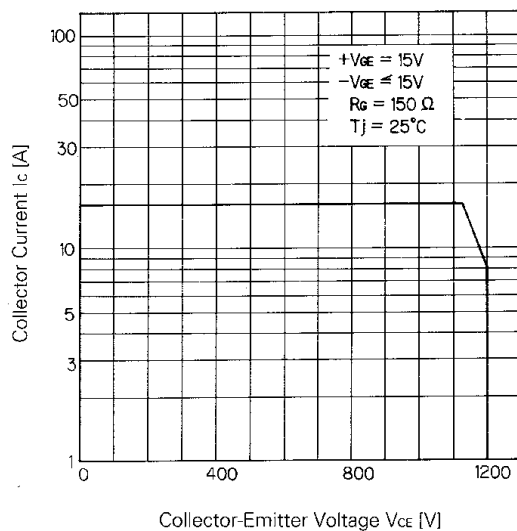
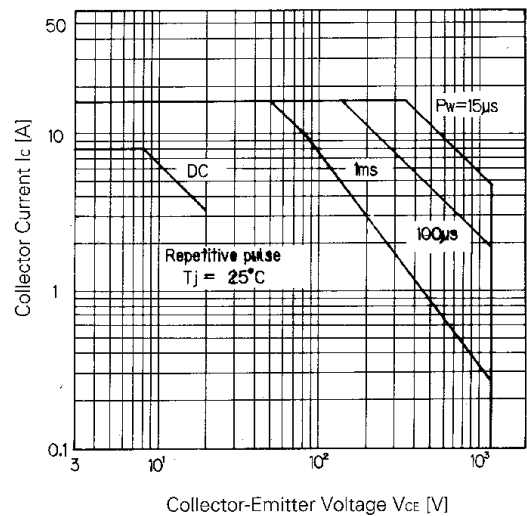
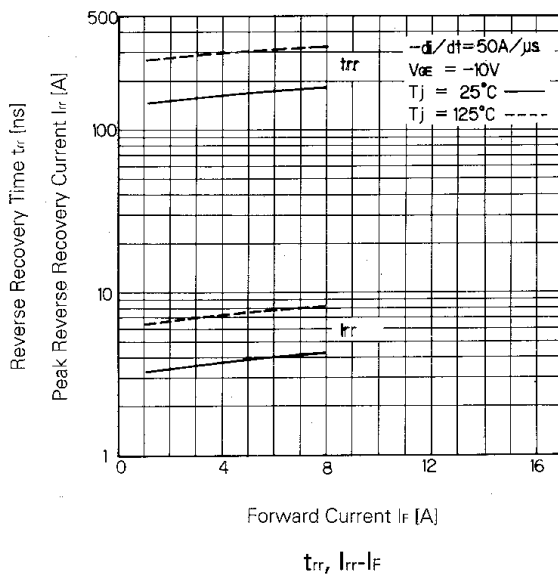
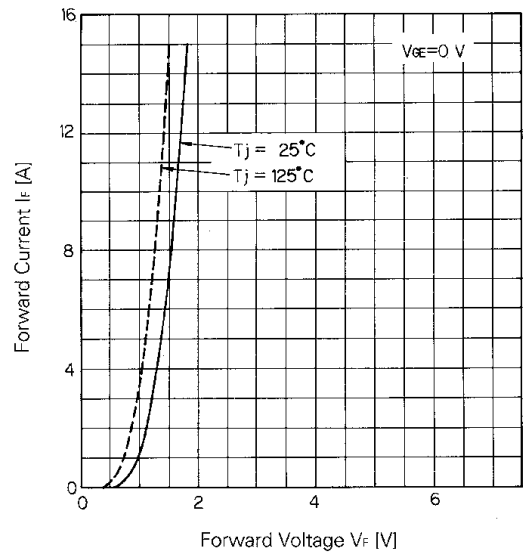
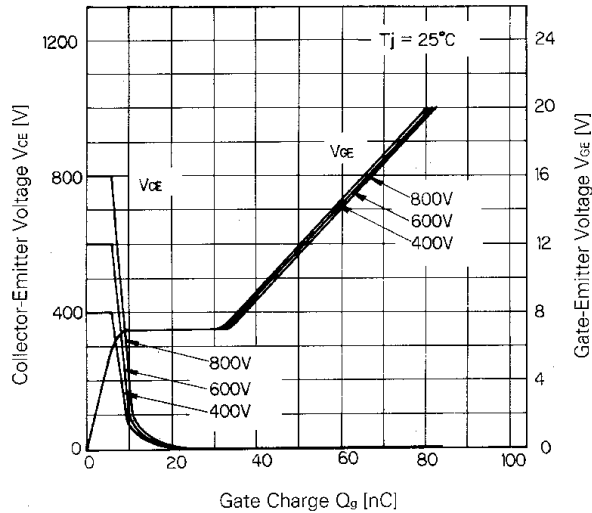
Switching Time



Switching Time



Switching Time-Gate Resistance



For more information, contact:

Collmer Semiconductor, Inc.

P.O. Box 702708

Dallas, TX 75370

972-733-1700

972-381-9991 Fax

<http://www.collmer.com>