

GCA100AA60

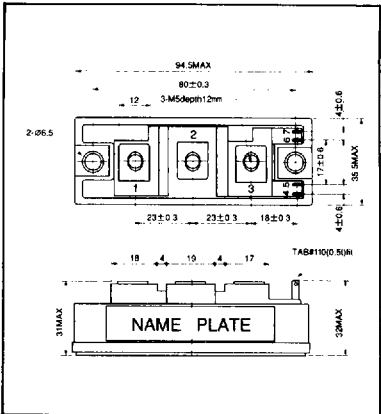
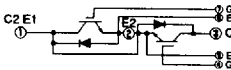
UL; E76102 (M)

SanRex IGBT Module GCA100AA60 is designed for Large current high speed switching. This module is insulated type, and contains two IGBTs in a series configuration and a fast recovery diode (trr=100ns) anti-parallelly connected to each IGBT.

- Ic = 100A/Vces = 600V/Vecs = 1.6V
- Vce (SAT) = 2.8V (Max)
- Soft recovery diode

(Applications)

Motor control (VVVF), UPS, AC servo,
Switching power supply,
welding machine etc.



Maximum Ratings

(Tj = 25°C)

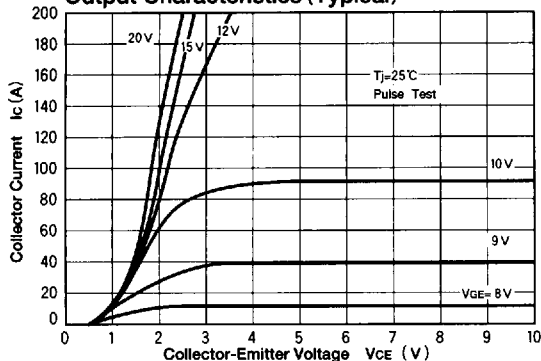
Symbol	Item		Conditions	Ratings	Unit
				GCA100AA60	
Vces	Collector-Emitter Voltage			600	V
Vges	Gate-Emitter Voltage			± 20	V
Ic	Collector Current	DC		100	A
Icp		Pulse (1ms)		200	
-Ic	Reverse Collector Current			100	A
Pr	Total Power Dissipation		Tc = 25°C	400	W
Tj	Junction Temperature			150	°C
Tstg	Storage Temperature			- 40 ~ + 125	°C
Viso	Isolation Voltage (R.M.S)		A.C. 1minute	2500	V
	Mounting Torque	Mounting (M6)	Recommended Value 2.5~3.9 (25~40)	4.7 (48)	N·m (kgf·cm)
		Terminals (M5)	Recommended Value 1.5~2.5 (15~25)	2.7 (28)	
	Mass		Typical value	210	g

Electrical Characteristics

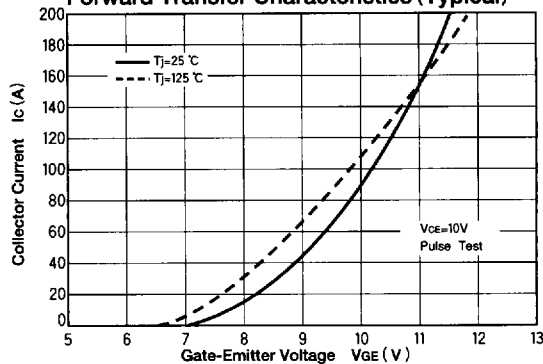
(Tj = 25°C)

Symbol	Item		Conditions	Ratings			Unit
				Min.	Typ.	Max.	
IGES	Gate Leakage Current		VGE = ± 20V, VCE = 0V			± 500	nA
ICES	Collector Cut-Off Current		VCE = 600V, VGE = 0V			1.0	mA
V(BR)CES	Collector-Emitter Breakdown Voltage		VGE = 0V, Ic = 1mA	600			V
VGE(th)	Gate Threshold Voltage		VCE = 5V, Ic = 10mA	3.0		7.0	V
VCE(sat)	Collector-Emitter Saturation Voltage		Ic = 100A, VGE = 15V		2.2	2.8	V
Cies	Input Capacitance		VCE = 25V, VGE = 0V, f = 1MHz		7000	10000	pF
td(on)	Swiching Time	Turn-on Delay Time	Ic = 100A, VGE = +15V/-5V VCC = 300V, RG = 6Ω		0.20	0.40	μs
tr		Rise Time			0.10	0.20	
td(off)		Turn-off Delay Time			0.40	0.80	
tf		Fall Time			0.20	0.30	
VECS	Emitter-Collector Voltage		-Ic = 100A, VGE = 0V		2.0	2.80	V
trr	Reverse Recovery Time		-Ic = 100A, VGE = -10V, di/dt = 200A/μs		0.1		μs
Rth(j-c)	Thermal Resistance		Tr-Case			0.31	°C/W
			D-Case			0.83	

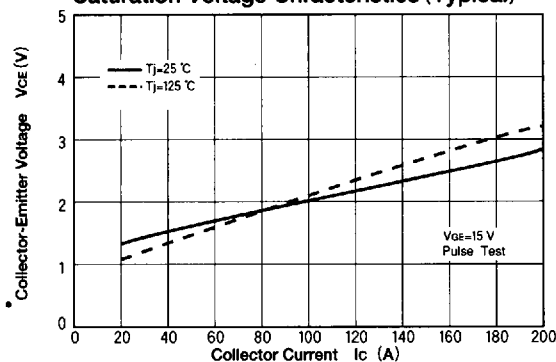
Output Characteristics (Typical)



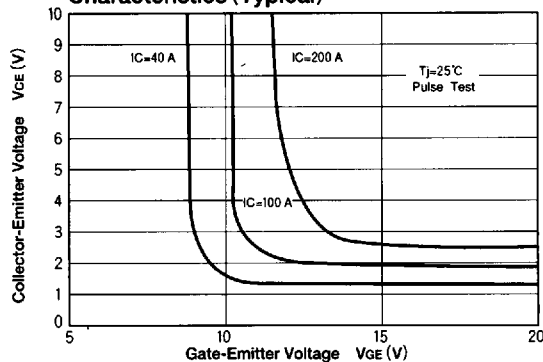
Forward Transfer Characteristics (Typical)



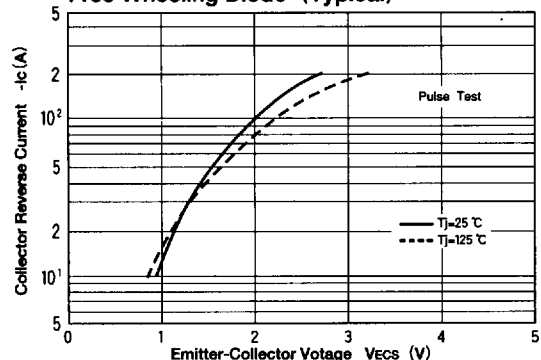
Saturation Voltage Characteristics (Typical)



Collector-Emitter Saturation Voltage Characteristics (Typical)



Forward Voltage of Free Wheeling Diode (Typical)



Input Capacitance, Output Capacitance, Transfer Capacitance (Typical)

