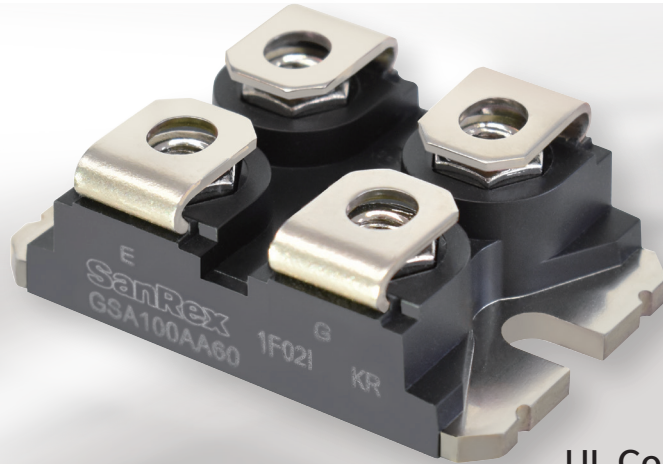
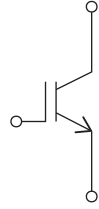


Insulated Gate Bipolar Transistor

GSA100AA60
(100A 600V)



UL Compliant 
UL File No.E76102

Applications

- ▶ AC / DC TIG Welding Equipment
- ▶ Bypass AC Switch (such as UPS)
- ▶ Forward-Reverse pulse power (for surface treatment)

Features

■ Pursuing low loss in the low switching frequency range

Achieves low $V_{ce(sat)}$ thanks to our original IGBT chip (**1.21V Typ 125°C**)

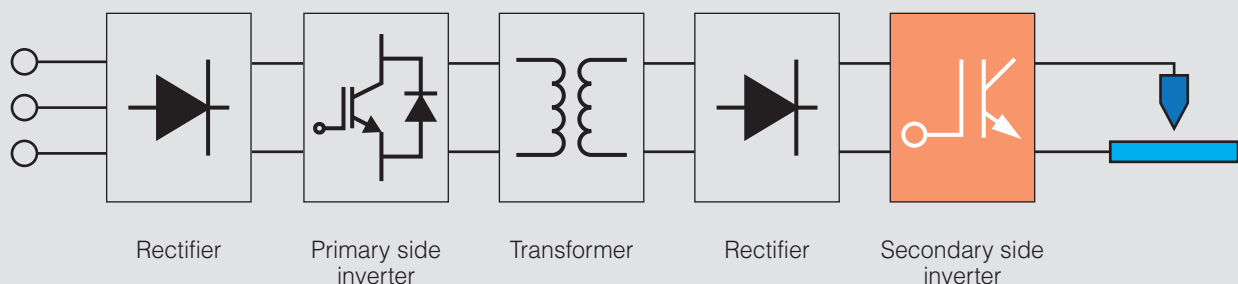
■ Compact and reliable package

- Compact and reliable SOT-227 standard package
- Can be directly attached to the heat sink
- Isolation voltage 2500V
- RoHS compliant

Example

AC / DC TIG Welding Equipment Configuration

The SOT 227 package contributes to the overall miniaturization of on-board equipment.



Maximum Ratings

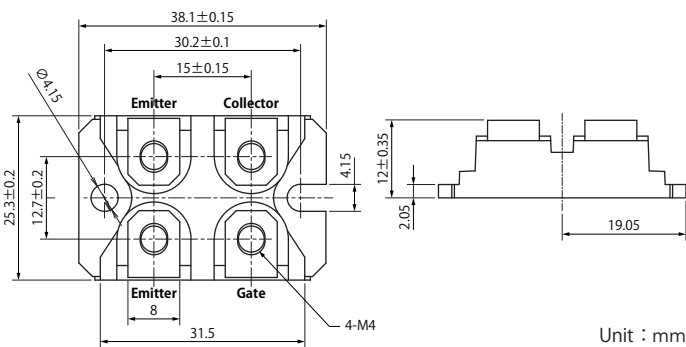
T_j=25°C unless otherwise specified

Item	Symbol	Unit	Rating	Conditions
Collector-Emitter Voltage	V _{CES}	V	600	V _{GE} = 0 V
Gate-Emitter Voltage	V _{GES}	V	±20	V _{CE} = 0 V
Collector Current	I _C	A	100	V _{GE} = 15 V, D.C., T _c = 113 °C
Total Power Dissipation	P _T	W	500	T _c = 25 °C
Operating Junction Temperature	T _j	°C	-40 ~ +150	
Storage Temperature	T _{stg}	°C	-40 ~ +125	
Isolation Voltage	V _{ISO}	V	2500	AC RMS 1minute, Terminals to Case

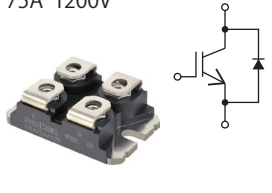

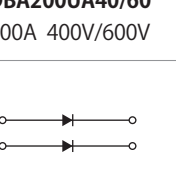
Electrical Characteristics

T_j=25°C unless otherwise specified

Item	Symbol	Unit	Rating			Conditions
			Min.	Typ.	Max.	
Gate-Emitter leakage current	I _{GES}	μA			10	V _{GE} = ±20 V, V _{CE} = 0 V
Collector-Emitter Breaking Current	I _{CES}	μA			100	V _{CE} = 600 V, V _{GE} = 0 V
					1000	V _{CE} = 600 V, V _{GE} = 0 V, T _j = 125 °C
Collector-Emitter Breakdown Voltage	V _{(BR)CES}	V	600			V _{GE} = 0 V, I _C = 100 μA
Gate-Emitter Threshold Voltage	V _{GE(th)}	V	5.3	6.0	6.7	V _{CE} = 10V, I _C = 10 mA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	V		1.25	1.50	I _C = 100 A, V _{GE} = 15 V
				1.21		I _C = 100 A, V _{GE} = 15 V, T _j = 125 °C
Input Capacity	C _{ies}	nF		6.69		V _{CE} = 10 V, V _{GE} = 0 V, f = 1 MHz
Output Capacity	C _{oes}	nF		0.90		
Feedback Capacity	C _{res}	nF		0.23		
Thermal Resistance	R _{th(j-c)}	°C/W			0.25	



SOT-227 Package Lineup

IGBT	Fast Recovery Diode	Soft Recovery Diode
GSA75AA120 75A 1200V 	DBA200YA40 200A 400V 	DBA200WA40/60 DBA200UA40/60 200A 400V/600V 

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- Appearance and specifications of products are subject to change without notice for improvement reasons.

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