

SANYO

No.820D

DRA8

Silicon Diffused Junction Type

8.0A Reverse Blocking Thyristor**Features**

- Glass passivation for high reliability
- Peak OFF-state (reverse) voltage : -100 to -600V
- Average ON-state current : 8A
- TO-220 package
- Weight : 2g

Absolute Maximum Ratings at Ta=25°C

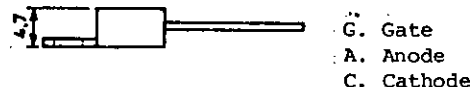
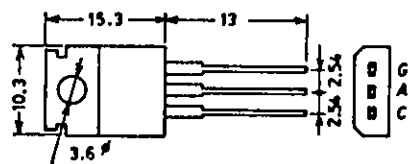
		DRA8B	DRA8C	DRA8E	DRA8G	unit	
Repetitive Peak OFF-State Voltage	V_{DRM}	100	200	400	600	V	
Non-Repetitive Peak Reverse Voltage	V_{RSM}	-150	-300	-500	-700	V	
Repetitive Peak Reverse Voltage	V_{RRM}	-100	-200	-400	-600	V	
Average ON-State Current	$I_{T(AV)}$	Tc=83°C, single-phase half-wave → → →				8	A
RMS ON-State Current	$I_{T(RMS)}$	→ → →				12.6	A
Surge ON-State Current	I_{TSM}	Sine half-wave → → →				120	A
Amperes Squared-Seconds	$\int I_T^2 \cdot dt$	→ → →				70	A ² S
Peak Gate Power Dissipation	P_{GM}	→ → →				5	W
Average Gate Power Dissipation	$P_{G(AV)}$	→ → →				0.5	W
Peak Gate Forward Current	I_{FGM}	→ → →				2	A
Peak Gate Forward Voltage	V_{FGM}	→ → →				10	V
Peak Gate Reverse Voltage	V_{RGM}	→ → →				5	V
Junction Temperature	T_j	→ → →				125	°C
Storage Temperature	T_{stg}	→ → →				-40 to +125	°C

Electrical Characteristics at Ta=25°C

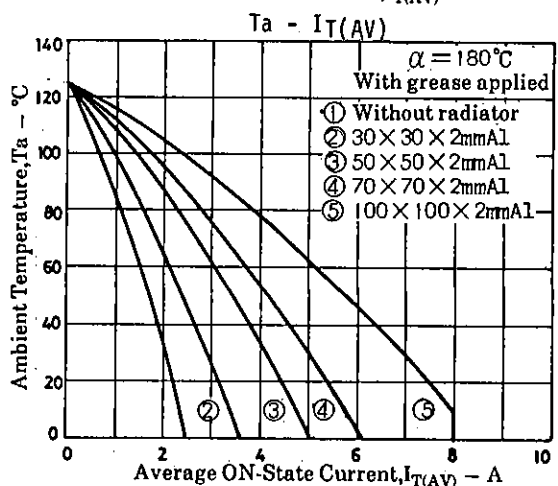
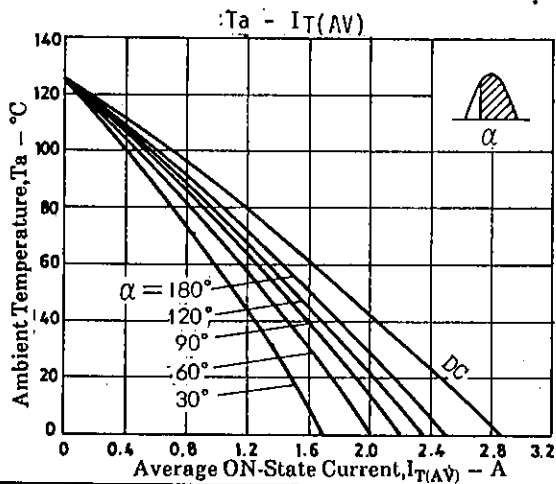
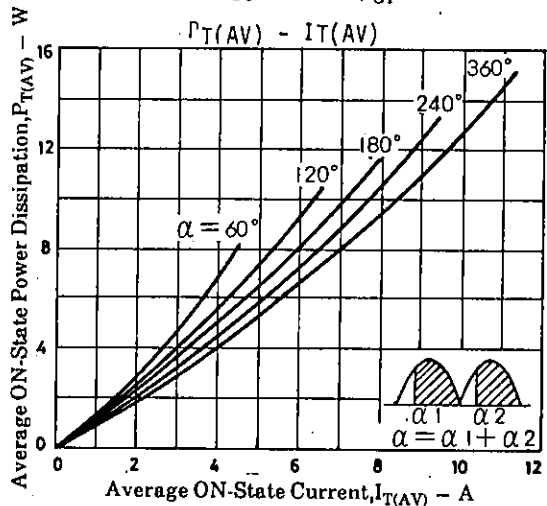
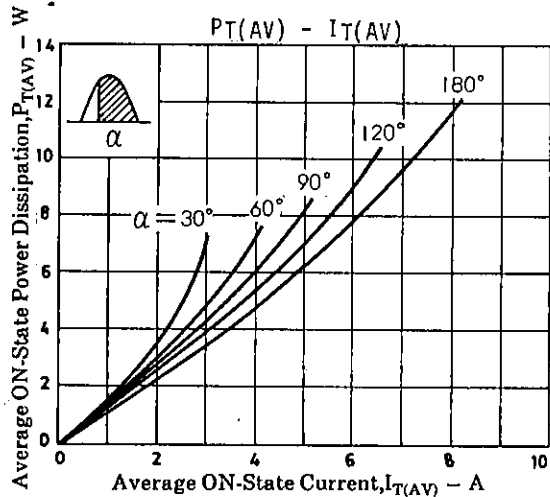
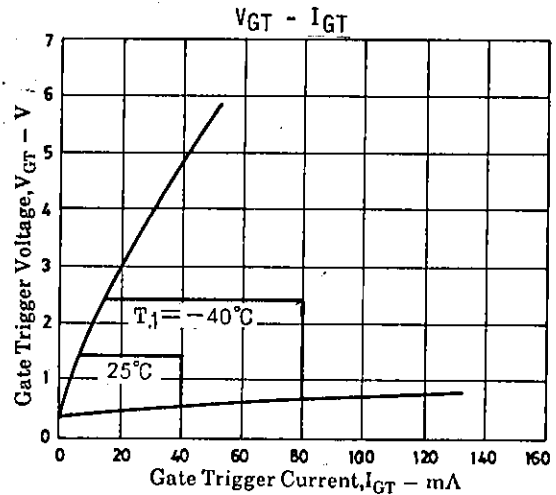
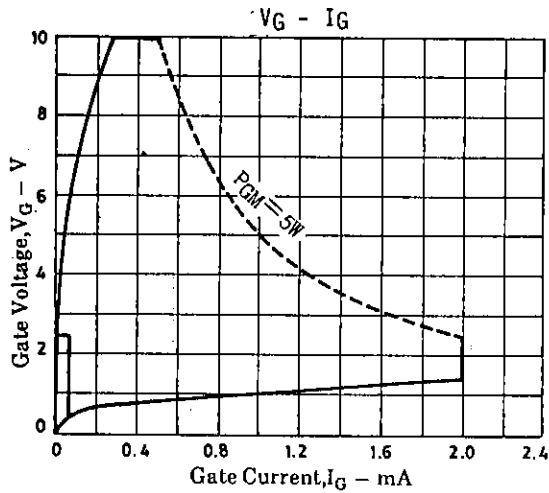
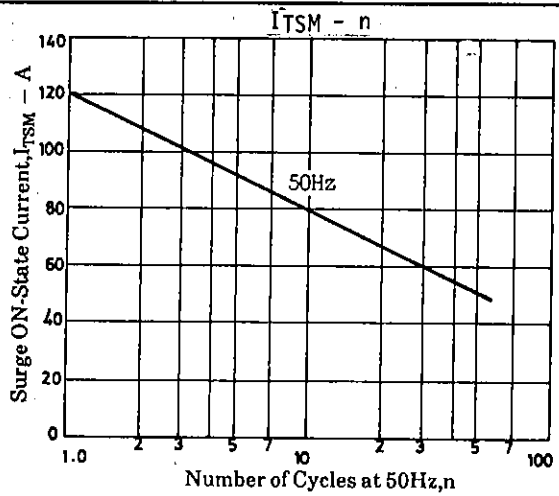
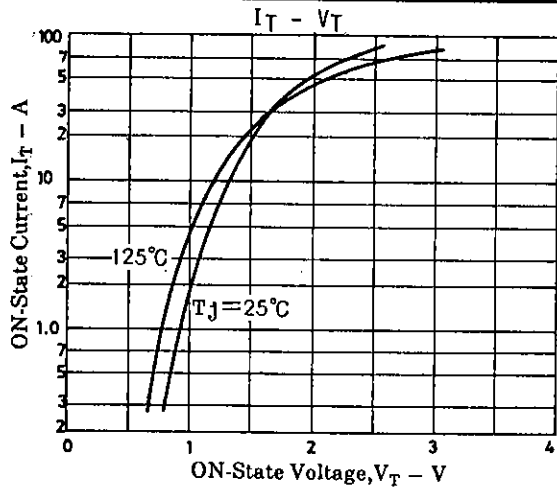
			min	typ	max	unit
Repetitive Peak OFF-State Current	I_{DRM}	Tj=125°C, $V_D = V_{DRM}$			2	mA
Repetitive Peak Reverse Current	I_{RRM}	Tj=125°C, $V_D = V_{RRM}$			2	mA
ON-State Voltage	V_T	$I_T = 25A$			1.6	V
Critical Rate of Rise of OFF-State Voltage	dv/dt	Tc=125°C, $V_D = 2/3V_{DRM}$	30			V/μs
Holding Current	I_H	$R_L = 100\Omega$			60	mA
Gate Trigger Current	I_{GT}	$V_D = 6V, R_L = 10\Omega$			40	mA
Gate Trigger Voltage	V_{GT}	$V_D = 6V, R_L = 10\Omega$			1.5	V
Gate Nontrigger Voltage	V_{GD}	Ta=125°C, $V_D = 2/3V_{DRM}$	0.2			V
Thermal Resistance	$R_{th(j-c)}$				3	°C/W

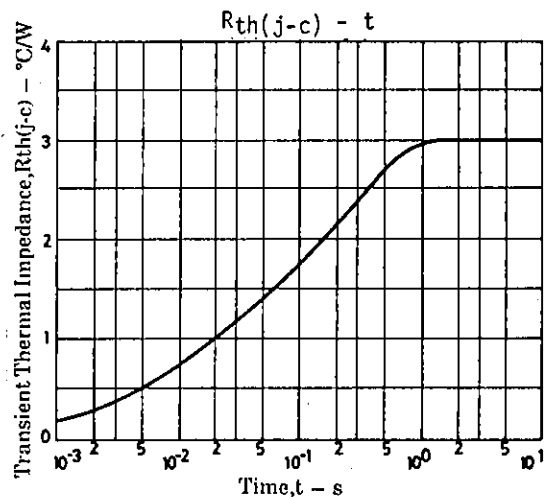
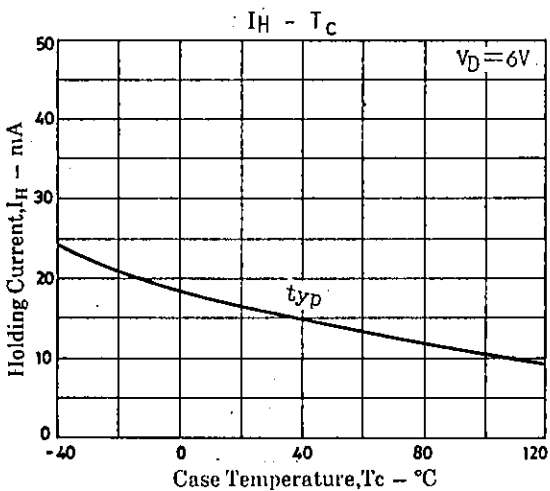
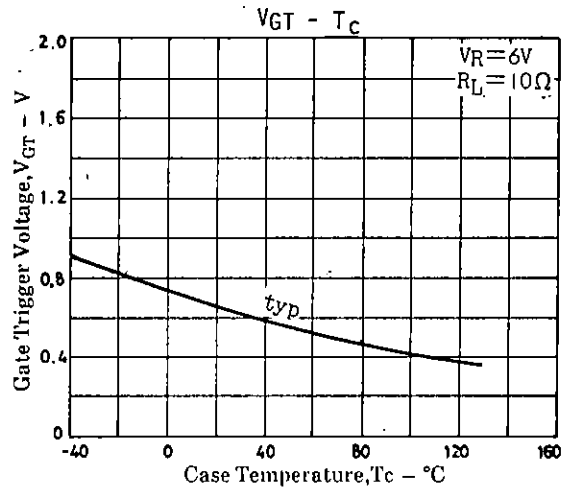
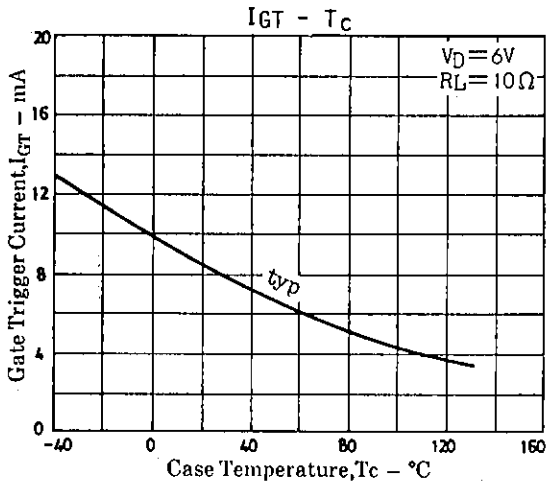
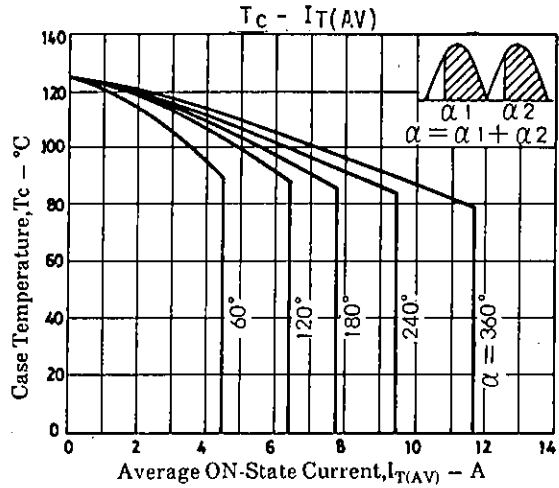
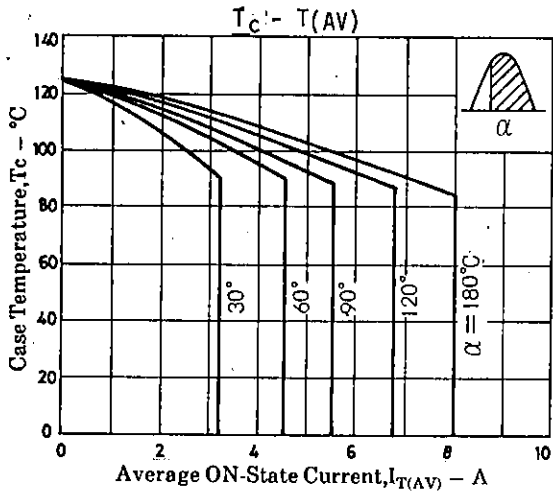
Package Dimensions 1104

(unit: mm)

**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN





■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.