

**SANYO**

No.1873A

**DRD3**

Silicon Diffused Junction Type

**3.0A Reverse Blocking Thyristor****Features**

- Glass passivation for high reliability
- Peak OFF-state (reverse) voltage : -100 to -600V
- Average ON-state current : 3A
- TO220 package

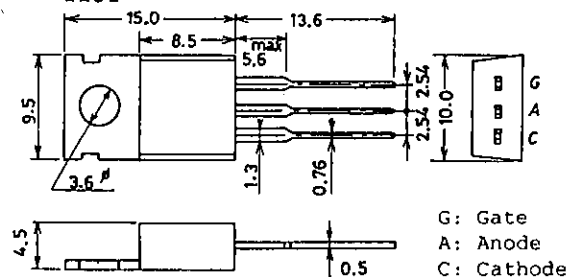
Absolute Maximum Ratings at Ta = 25°C			DRD3B	DRD3C	DRD3E	DRD3G	unit
Repetitive Peak OFF-State Voltage	V <sub>DRM</sub>	R <sub>GK</sub> = 1kΩ	100	200	400	600	V
Non-Repetitive Peak Reverse Voltage	V <sub>RSM</sub>	R <sub>GK</sub> = 1kΩ	-150	-300	-500	-720	V
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	R <sub>GK</sub> = 1kΩ	-100	-200	-400	-600	V
Average ON-State Current	I <sub>T(AV)</sub>	Ta = 30°C, single-phase half-wave	→	→	→	3	A
RMS ON-State Current	I <sub>T(RMS)</sub>		→	→	→	4.5	A
Surge ON-State Current	I <sub>TSM</sub>	Sine half-wave 1 cycle, 50Hz	→	→	→	60	A
Amperes Squared-Seconds	f <sub>i</sub> <sup>2</sup> T·dt	1ms ≤ t ≤ 10ms	→	→	→	18	A <sup>2</sup> s
Peak Gate Power Dissipation	P <sub>GM</sub>	f ≥ 50Hz, duty ≤ 10%	→	→	→	5	W
Average Gate Power Dissipation	P <sub>G(AV)</sub>		→	→	→	0.5	W
Peak Gate Forward Current	I <sub>FGM</sub>	f ≥ 50Hz, duty ≤ 10%	→	→	→	3	A
Peak Gate Reverse Voltage	V <sub>RGM</sub>		→	→	→	-5	V
Junction Temperature	T <sub>j</sub>		→	→	→	110	°C
Storage Temperature	T <sub>stg</sub>		→	→	→	-40 to +110	°C
Weight			→	→	→	2	g

**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
Repetitive Peak OFF-State Current	I <sub>DRM</sub>	T <sub>j</sub> = 110°C, V <sub>D</sub> = V <sub>DRM</sub> , R <sub>GK</sub> = 1kΩ			0.5	mA
Repetitive Peak Reverse Current	I <sub>RRM</sub>	T <sub>j</sub> = 110°C, V <sub>R</sub> = V <sub>RRM</sub> , R <sub>GK</sub> = 1kΩ			-0.5	mA
Peak ON-State Voltage	V <sub>TM</sub>	I <sub>TM</sub> = 12A			1.6	V
Critical Rate of Rise of OFF-State Voltage	dv/dt	T <sub>j</sub> = 110°C, V <sub>D</sub> = V <sub>DRM</sub> , R <sub>GK</sub> = 1kΩ	100			V/s
Holding Current	I <sub>H</sub>	R <sub>L</sub> = 100Ω, R <sub>GK</sub> = 1kΩ		60		mA
Gate Trigger Current	I <sub>GT</sub>	V <sub>D</sub> = 6V, R <sub>L</sub> = 100Ω, R <sub>GK</sub> = 1kΩ			15	mA
Gate Trigger Voltage	V <sub>GT</sub>	V <sub>D</sub> = 6V, R <sub>L</sub> = 100Ω, R <sub>GK</sub> = 1kΩ			1.5	V
Gate Nontrigger Voltage	V <sub>GD</sub>	Ta = 110°C, V <sub>D</sub> = V <sub>DRM</sub> , R <sub>GK</sub> = 1kΩ	0.2			V
Thermal Resistance	R <sub>th(j-c)</sub>				3.2	°C/W

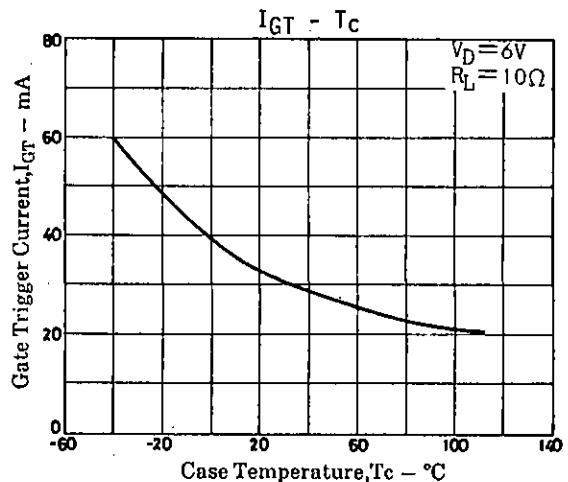
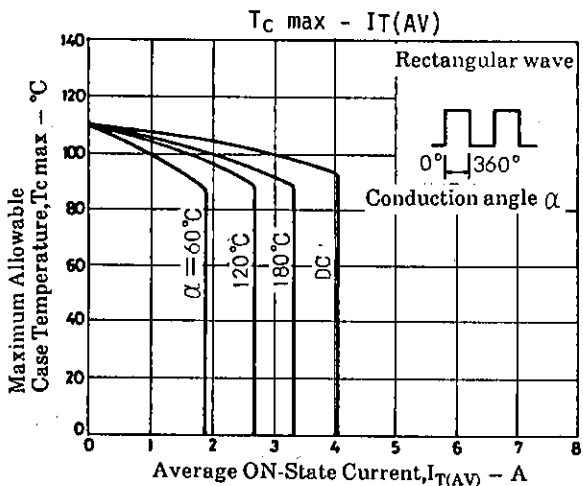
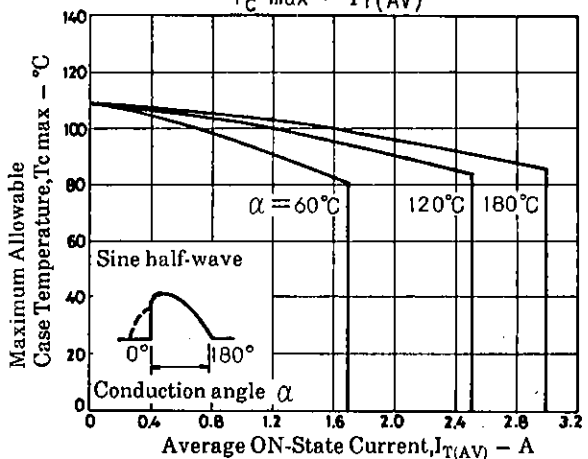
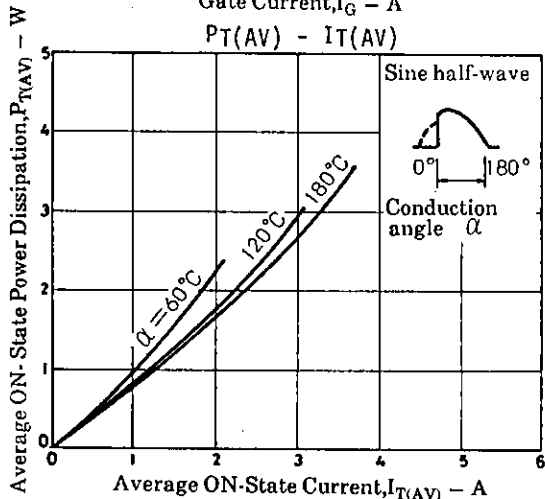
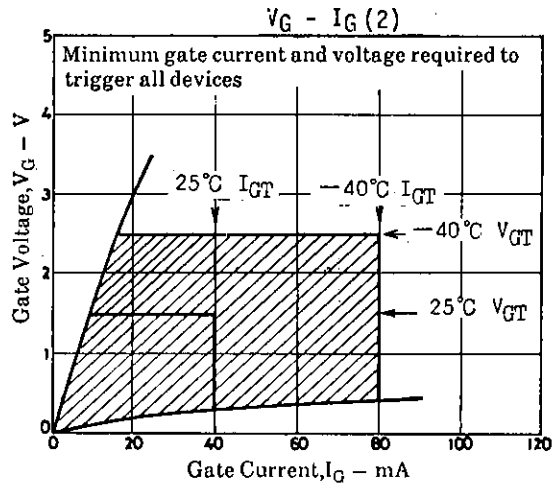
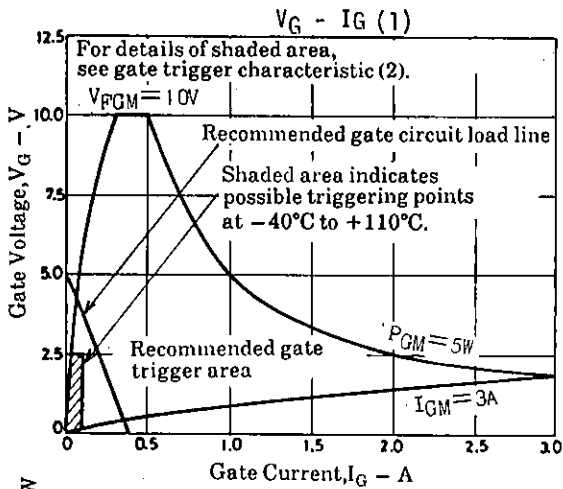
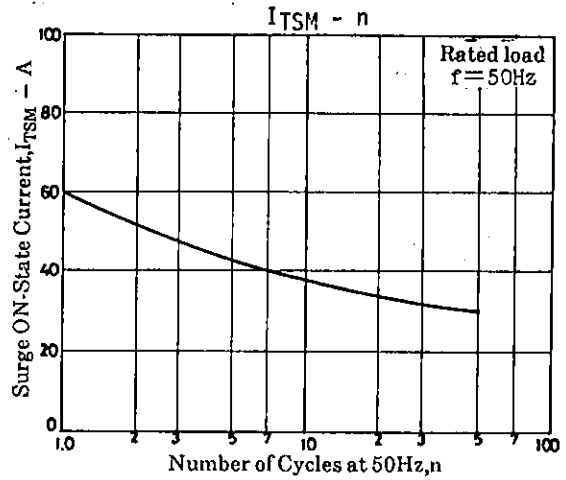
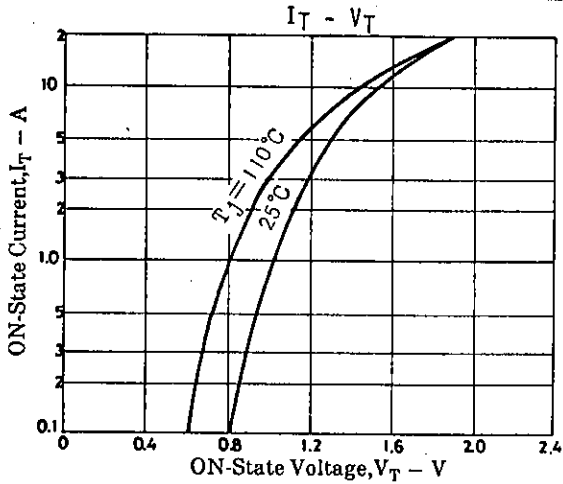
**Package Dimensions 1151**

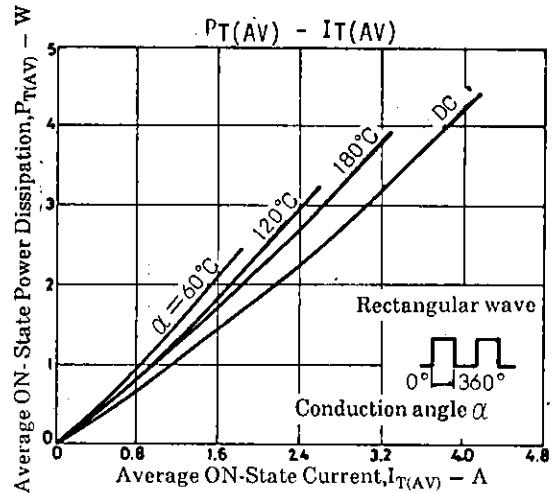
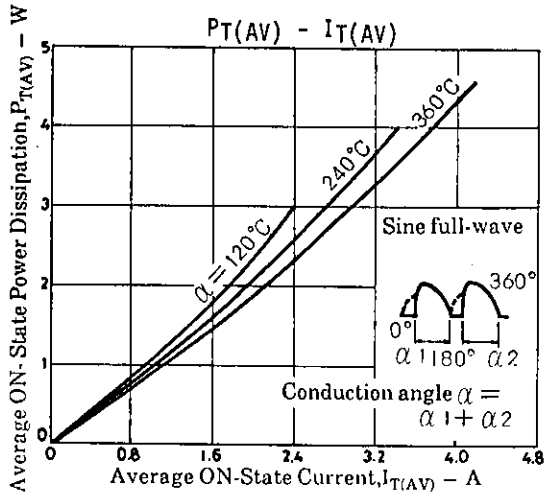
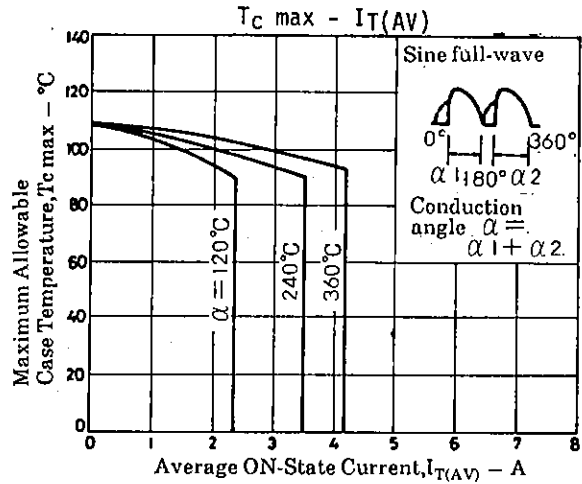
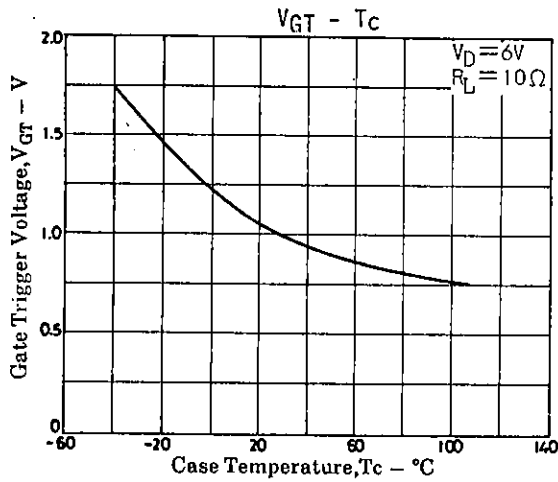
(unit: mm)



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3139MO,TS No.1873-1/3





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